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ABSTRACT

This study reports the first year of an exemplary program at Garfield High School, Seattle, where a program of occupational skills was instituted as a regular part of the comprehensive school curriculum. First year objectives included efforts to: (1) plan and develop limited operation of vocational-technical programs, (2) establish technical advisory groups in the skill areas, (3) individualize the curriculum, (4) provide inservice training for staff, and (5) enroll one-fourth of the student body or 250 students in an occupational development program. Major accomplishments of these efforts included: (1) More than 130 persons were involved in the initial planning of the program, (2) By September 1970, 14 courses had been initiated and some 300 students enrolled, and (3) Staff development was furthered through two workshops in 1970-1971 for all program staff. A major recommendation of the report is that the middle school area of career orientation and education should be fully developed during the second year program. (JS)

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INTERIM REPORT

Project No. 1-361-0168
Contract No. OEG-0-71-1171 (361)

Central Area Schools Occupational Development Program

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

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December 1971

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OCCUPATIONAL DEVELOPMENT PROGRAM

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The project reported herein was performed pursuant to a grant with the Bureau of Adult, Vocational, and Technical Education, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such project under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

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I. SUMMARY

1.0 Unique Features of the Central Area School Occupational Development Program

1.) Career education a regular part of comprehensive school curriculum

2.) Work opportunity centers - on campus and in community

3.) Provision for special short-term training of students just before graduation

4.) Student placement coordinated by work experience staff

5.) Middle school integration of career education curriculum - Career Opportunity Program initiated.

(A) Time Period

1.1 Time period covered by Interim Report

The first year of the Career Opportunity Program, Central Area Schools Occupational Development Program, was from December 15, 1970, through December 14, 1971. The Federal Funding Grant award was made on March 5, 1971, through the Office of the Director of Health, Education, and Welfare as an Exemplary Project in Vocational Education conducted under Part D of Public Law 90-576. The effective date of the Exemplary Grant award was December 15, 1970. The Interim Report covers the first year period.

(B) Goals and Objectives of the Project

1.2 Extracted First Year Objectives and Plans

The first year objectives and plans of the Garfield Exemplary Program were as follows (revised):

1. To plan and develop limited operation of a Food Education and Service Training Program (FEAST).

2. To plan and develop limited operation of an Auto Service Program.

3. To plan and develop limited operation of a Construction Program.

4. To plan and develop limited operation of a Welding Program.

5. To establish "technical advisory groups" in the skill areas of FEAST, Auto Services, Construction, and Welding.

6. To individualize the curriculum for each student by providing courses which emphasize updated job skills, which are stated behaviorally, and with appropriate sequence.

7. To provide in-service training for the staff members on the methods of developing Learning Activity Packages (LAP).

8. To enroll one-fourth of the student body or 250 students in an occupational development program. (Grades 9 - 12.)

9. To decrease absenteeism of the 250 students or one-fourth of the student body by 20 per cent.

10. To change the attitude of 250 students or one-fourth of the student body toward the school.

11. Specific to those Occupational Development Program students with a g.p.a. less than 2.0:

    Assumptions: a.) Occupational Development Program enrollment g.p.a. will be less than 2.0,and b.) Student must remain in the program for a minimum of one (1) semester.

    11a. A 50 per cent increase in semester g.p.a. per academic area will occur as compared to the Occupational Development program enrollment base line cumulative g.p.a. per academic area.

    11b. Provided the student continues enrollment in the Occupational Development Program, the 50 per cent increase in academic area g.p.a., as compared to the enrollment base line g.p.a., will be maintained throughout the student's enrollment in the Occupational Development Program.

12. To develop linkage between the middle school program and the high school occupational development program.

13. To develop at least two work opportunity instructional areas.

(C) Procedures Followed

1.3 Procedures Followed for First Year Planning, Development, and Implementation

The procedures followed in developing the program involved a general process of input from varous sources, changes due to discussions and new information, review of limitations and resouces in light of current developments making up the alternatives (options) and critical decisions. All of these procedures and processes were carried out within the framework of the Exemplary Proposal guidelines.

Specifically, the procedures followed in developing the program of Occupational Skills for the Central Area Schools briefly involved these items. A Central Area Committee performed a survey which suggested thirty-seven possible occupational skill areas suitable for high school adaptation in this community.

In developing the Central Area Schools "4-4-4 Plan", a Task Force involving Occupational Skills was formed with the Education Specialist as Coordinator and Chairman. Working advisory committees of community persons, school staff and students, parents, experts, labor, and management were formed for each of the skills clusters. The function of these advisory committees was to recommend courses of action, develop curriculum, advise on equipment and supplies, and state qualifications for personnel required as instructors. In addition they were to formulate a plan whereby discrimination in the world of work would be lessened for minorities.

After critical input into each advisory committee and sub-committee through a process of change by discussion and information, an analytical review and evaluation was made. This lead to decisions as to whether individual skills areas were possible to be developed as an alternative, within the time, energy, and cost factors involved. Decisions were made by the Director of the Project on the basis of advisory committee recommendations, advice of the Education Specialist, and the Director-Principal. The result was a set of skills areas for development and implementation by Fall, 1970, with another set of skill areas for future implementation.

Addendum A to the Exemplary Proposal states that an advisory committee task force was formed shortly after January, 1970. Following the recommendation "of the advisory groups that the short term goals be modified and that work opportunity centers become operational as soon as possbile in order to affect the necessary changes needed in the community at this time", short term goals were modified and centers established.

In addition to the four specific areas of Auto Services, Welding, Construction, and FEAST specified, the Central Area School Task Force planned and developed a comprehensive curriculum for vocational education at Garfield High School and a potential linkage between the middle and high schools. Due to the need for an educational chnage in Garfield's curriculum and compounded by an employment crisis in the city in general and in the Central Area in particular, the school and the community deemed it of highest priority that the entire program be operational as soon as was practical. Additional sources of local funds were sought and found to supplement and expedite the operation of the comprehensive program.

The personnel, equipment, remodeling and facilities, and the curriculum were drawn together. The program was implemented after less than six months of critical planning. Fourteen occupational skill areas were readied for Fall, 1970. Two more were readied for February,

1971. At present there are nineteen elective choices in the Occupational Skills Program at Garfield for a student, including an elective of independent study in any one of the career opportunity skills areas.

(D) Results; Accomplishments

1.4 Results and Accomplishments for the First Year

1. More than 130 persons were involved in the initial planning as members of the Occupational Skills Task Force and Advisory Committees. There are 191 permanent advisory committee members in Occupational Skills at the present time.

2. By September, 1970, 14 courses had been initiated and some 300 students enrolled. Fall Fall, 1971, five more courses were added and 462 students enrolled. In all, these comprised 44 separate elective choices for students.

3. Six of the fourteen instructors were actively engaged in their trade or profession outside of class time on a daily basis.

4. By September, 1970, three of the courses were state approved and certified; by October of 1971, eleven of the Career Opportunity skills areas were state approved.

5. Even though some minor remodeling was not completed, all 14 skills areas enabled students to move progressively in skill building from the onset in September, 1970.

6. Examples of skills building were evidenced by the following:

a) The Construction Technology students in Carpentry, Electrical Worker, Drafting and Sheet Metal were able to finish a significant work on the recreational type house by the end of the second semester in June, 1971. Thirty-seven students worked with three instructors during the school day, with 18 students receiving pay for after-class work study. b) 69 students in the Life Sciences Training Program (Lab Assistants and Nursing Aide/Orderly) during Summer School, 1971, were placed in 37 job stations involving clinics, hospitals, nursing homes, laboratories, and camp counseling, for a period of from six to ten weeks, all paid work study job training. (28 of these students were regularly enrolled in high schools other than Garfield during the regular year.) c) Three students in Auto Services/Service Station Attendant worked after hours at the school service station with pay. d) Students in the FEAST Program put on a weekly lunch open to the adult public after March, 1971.

7. In August, 1971, the Garfield Staff, including COP, published a book of course behavioral objectives giving performance level criteria, as well as supplemental materials on course outlines and curricular details.

8. On April 5, 1971, the Career Opportunity Program, along with the other departments in the school, put on an Open House. Advisory Committee members aided as hosts and 352 visitors viewed the activities, projects, and classrooms facilities.

9. Linkage was established with the middle school during the Fall, 1971, and a middle school vocational guidance counselor was hired who developed career orientation activities for grades five through eight.

10. Administrative procedures and processes were established during 1970-71, and refined in 1971-72, which gave accountability and credibility to the program. The evaluative process focused on student placement in a job for which he had been trained in the program.

11. Staff development was furthered through two workshops in 1970-1971, for all COP staff; an EDPA Part D grant and a "Summer '70" one-week workshop.

(E) Evaluation

1.5 Evaluation Through First Year

On June 14, 1971, a contract was let between Seattle Public Schools and University Informations Service as Third Party Evaluators to evaluate the first year Exemplary Program, December 15, 1970, through December 14, 1971. A copy of this contract is enclosed in the appendix to the Quarterly Report, November, 1971, Exemplary. For the evaluation see section in body of report.

Besides the Third Party Evaluation, Exemplary, continuous in-house, Seattle School District Occupational Skills Task Force, annual Model Cities Third Party Evaluators including on-site evaluations, and State Vocational Education appraisals and approvals are made from time to time.

The Career Opportunity Program system model for evaluation has as the focal evaluative tool, the product of our program - the student -, and the performance level which he achieves after placement at entry level jobs. See body of report and appendix for details.

(F) Conclusions and Recommendations

1.6 Conclusions and Recommendations Upon Completion of the First Year

Conclusions: A tremendous amount of resources from several sources were used to initiate the Occupational Skills Program, Career Opportunity Program, at Garfield High School. A limited amount was uded the first year for the middle school. Approximately one-third of the student body were enrolled in courses in occupational skills training during the first year (300 in Fall, 1970, and 462 in Fall of 1971). The number of students placed on jobs after graduation from the program have been few. Most have not completed their training program or graduated from high school. Generally, the student body has not become familiar enough with the Career Opportunity Program offerings and do not know how the courses can help them to obtain occupational skills. The majority of students are enrolled in service type skills training (Nursing Aide/Orderly, Dry Cleaning, FEAST, Sewing for Profit and Retailing). There was a lack of instructional supplies for student use during the first year, because funding sources provided for either major remodeling, major equipment and tools, or for personnel for planning and development of the program. Despite membership on advisory committees by labor and management representatives, efforts were limited in obtaining commitments from labor or management regarding placement of students who graduate from the program.

Recommendations:

1. That since the need for improving, expanding, and extending the program is still great, funds budgeted for these items should not be decreased. (The Seattle School Building Bond was a one-time use fund.)

2. That the middle school area of career orientation and education should be fully developed during the second year program.

3. That an increased effort be made by responsible personnel in the Career Opportunity Program to promote the program to students, recruit students, and counsel students so that all may have a marketable skill upon graduation from high school. The increased effort at the middle school should also work toward this end.

4. That an increased effort be made to assay aptitude and interest of students enrolled in Career Opportunity courses so that students capitalize on their interests and aptitudes in a skill building effort.

5. That students be encouraged and supported in choosing occupational skills courses in the broad spectrum of job opportunities and especially in the building trades.

6. That monies for instructional supplies, especially those which individualize instruction, be increased during the second year.

7. That efforts be greatly increased to obtain commitments from labor and management for placement of students in jobs at entry level skills, apprenticeship programs, and other positions for which they are trained.

8. That instructors be placed in summer work in the industry, service or trade which will enhance their instructorship and provide direct linkage with that industry, service or trade. Further that instructors be encouraged through some remuneration to attend conferences, workshops,

and meetings with their allied industry, service or trade.

9. That staff continue to engage in in-service activities which improve the quality of their instructorship and provide realistic skill building for students, especially basic skills.

II. BODY OF REPORT

(A) Problem Area Toward Which the Project Was Directed

2.0 Garfield High School is in the Central Area, located in the inner core of the more than 1.5 million people included in the Megalopolis of Seattle. Garfield has a present population in the four grade levels of a little over one thousand students and 95 staff members located in a two-building campus. As in most urban areas whose schools are plagued with three broad areas of problems, that is, pupil, staff, and school-community relations programs, Garfield has experienced over the past few years the following proliferation of disturbing symptoms:

- -a decline in enrollment numbers over past five years of over 500 students
- -an increase of more than 100% in the number of dropouts
- -a decline in average pupil achievement scores at all grade levels based on national achievement tests
- -a dramatic increase in the number of offenses involving pupils on school property
- -over 50% of staff requested to be transferred "out", with declining morale
- -approximately one-quarter of students requested to be transferred "out", despite the addition of a ninth grade as a result of the adoption of the 4-4-4 plan in September of 1970.

2.1 An exodus of Caucasian students and some Blacks has left a racial mix at Garfield indicated by the following November 1, 1970 school figures:

Caucasian	15.4		
Spanish surname	0.6	Total Caucasian:	16.0%
Black	79.1	Total Black:	79.1%
Nonwhite, Nonblack:			
Japanese	0.8		
Chinese	1.9		
Filipino	0.9		
American Indian	0.8	Total Nonwhite,	
Other	0.5	Nonblack:	4.9%

Despite these facts, there is a core of teachers and staff, aided by dedicated community persons and a vigorously active community school council who have made a significant effort to effect a change. The initiation of the Career Opportunity Program (Occupational Skills), intensified counseling, unique scheduling, and other special programs have made possible changes in the educational climate for students at Garfield. Team-teaching, independent study, individualized program learning, continuous progress as well as traditional methods are employed as methodology. The re-emphasis this past year on pupil centered learning resulted in a revision of the entire curriculum and the formation of behavioral objectives for courses which measure student progress and direct learning according to performance level criteria. We can only hope that these will result in a significantly changed educational picture for the student.

2.2 A definition of the Central Area Schools population, October 1, 1971, (Official Count) shows the current school population which may be affected by the Occupational Skills Program. This breakdown by schools is as follows:

School	Grade Levels	Regular Students	Others, As Indicated
Colman	K-6	316	
Gatzert	K-6	467	156 Special Ed.; 10 Preschool
Harrison	K-2	402	
Leschi	K-4	416	
Lowell	K-4	273	92 Special Ed.; 12 Ungraded
McGilvra	K-4	254	
Minor	K-4	603	
Montlake	K-4	220	
Seward	K-4	218	
Stevens	K-4	387	
Madrona/Meany	5-8	1536	9 Special Ed.
Garfield	9-12	1178	—
Subtotal	K-12	6270	10 Preschool 275 12 Ungraded

TOTAL 6,549 students

Figures obtained from J. Michael Hanegan, Specialist, Population Analyst, Seattle Public Schools.

(B) Goals and Objectives of the Project

3.0 Goals and Objectives (as stated in Occupational Skills Proposal Pages 12-13)

1. To establish career areas and job clusters which will provide a broad, comprehensive curriculum in which ample opportunities exist for the optimum exploration and development of talents and capabilities of students.

2. Teaching and instruction in these career areas and job clusters will be primarily designed to foster such development.

3. To increase significantly the employability of high school students and graduates by providing skill building and occupational training during high school years.

4. To have every student who graduates or drops out of school have a marketable skill.

5. To provide on-the-job training and follow through into work opportunities for in-school students parttime and summer; and for graduates full time or college placement.

6. To establish technical and advisory groups composed of community, school, labor and management, and experts to: (a) help specify student job skills and career areas, (b) identify potential job opportunities, and (c) develop a program for eliminating racial discrimination in job placement.

7. To individualize the curriculum for each student by providing courses which emphasize updated job skills, which are stated behaviorally and with appropriate sequence.

8. To provide funds for needed materials and for appropriate staff to carry out the project goals and provide for necessary changes to accommodate the proposed quality of the program.

9. To increase student academic achievement to a statistically significant degree compared with the present level.

10. To establish ongoing, self-sustaining work opportunity centers run by the school which will aide in providing the student with on-the-job training.

3.1 Extracted First Year Objectives and Plans

The first year objectives and plans of the Garfield Exemplary Program were as follows (revised):

1. To plan and develop limited operation of a Food Education and Service Training Program (FEAST).

2. To plan and develop limited operation of an Auto Service Program.

3. To plan and develop limited operation of a Construction Program.

4. To plan and develop limited operation of a Welding Program.

5. To establish "technical advisory groups" in the skill areas of FEAST, Auto Service, Construction, and Welding.

6. To individualize the curriculum for each student by providing courses which emphasize updated job skills, which are stated behaviorally, and with appropriate sequence.

7. To provide in-service training for the staff members on the methods of developing Learning Activity Packages (LAP).

8. To enroll one-fourth of the student body or 250 students in an occupational development program.

9. To decrease absenteeism of the 250 students or one-fourth of the student body by 20 per cent.

10. To change the attitude of 250 students or one-fourth of the student body toward the school.

11. Specific to those Occupational Development Program students with a g.p.a. less than 2.0:

Assumptions:

a.) Occupational Development Program enrollment g.p.a. will be less than 2.0,

b.) Student must remain the program for minimum of one (1) semester,

11a. A 50 per cent increase in semester g.p.a. per academic area will occur as compared to the Occupational Development Program enrollment base line cumulative g.p.a. per academic area.

11b. Provided the student continued enrollment in the Occupational Development Program, the 50 per cent increase in academic area g.p.a., as compared to the enrollment base line g.p.a., will be maintained throughout the student's enrollment in the Occupational Development Program.

12. To develop linkage between the middle school program and the high school occupational development program.

13. To develop at least two work opportunity instructional areas.

3.2 Second Year Objectives and Plans

The second-year objectives and plans of the Garfield Occupational Skills Development Program are as follows:

1. To implement a full operation of Food Education and Service Training (FEAST).

2. To implement full operation of Construction Technology (Building Trades now called Carpentry).

3. To implement full operation of the Auto Services/Service Station Attendant Program.

4. To continue to plan and develop a limited operation of a Welding Program.

5. To extend, expand, improve, and develop or eliminate occupational skills areas on the basis of the evaluation system (including recommendations of advisory groups).

6. To individualize the curriculum and provide to the student units which emphasize updated job skills, which are stated behaviorally, and with appropriate sequence so that each student may enter the program at any time and upon certification have an entry level job skill.

7. To enroll one-half of the student body, or approximately 500 students, including young adults and others who have been out of school for a time, transfers from other schools, or students from Alternative Schools in occupational skills classes.

8. To decrease absenteeism of the 500 students by 20 per cent.

9. To develop the linkage between the community college occupational skills program, or other occupational skills training programs, and the high school occupational development program.

10. To establish and make operational at the middle school level, a program describing to the student the workingman's world over a wide span of occupations (grade levels five through eight).

11. To issue to each student who satisfactorily completes the minimum behavioral objectives in an occupational skills area a Certificate of Excellence for that course which briefly describes his skills.

12. To develop Learning Activity Units in each subject area which individualize instruction in skill building for those behavioral objectives which are found to be the most difficult for students to learn.

13. To establish and develop at least two new work centers in the community (either extensions of on-campus work centers, cooperative education, or new.)

14. To submit for approval of the State Office of Vocational Education at least four of the on-going courses which are not now approved.

15. To those students enrolled in occupational skill courses who have a g.p.a., of 2.0 or less: (a) a 50 per cent increase in semester g.p.a. per academic area will occur as compared to the Occupational Development Program enrollment base line cumulative g.p.a. per academic area, and (b) provided the student continues enrollment in the Occupational Development Program, the 50 per cent increase in academic area g.p.a., as compared to the enrollment base line g.p.a., will be maintained throughout the student's enrollment in the Occupational Development Program.

16. To maintain a placement file on students who are certificated in occupational skills courses.

(C) Description of the General Project Design & Procedures

4.0 General Project Design

Specific functions which are based on national, state, and local goals for vocational education have been identified as follows:

1. Population needs analysis
2. Job market analysis
3. Job performance requirements analysis
4. Curriculum resources and ancillary services
5. Program planning
6. Program review
7. Vocational education promotion
8. Student recruitment
9. Guidance and counseling
10. Vocational instruction
11. Student placement
12. Program evaluation

These functions provide check points for program analysis and evaluation accountability by identifying specific measures for expected outcomes. If these expected outcomes are related to the product of the program, that is, the student being placed on an entry level job, the system becomes like an ecosystem in which feedback to correct necessary elements of the program's system is assured.

These twelve functions are expanded in great detail on pages 14 on, in the Quarterly Report, November, 1971, in the Appendix. There have been no significant changes in the general project design in the short interim period. Chart C, page 15 of Appendix, Vocational Education Functions, and Chart D, page 51 of Appendix, Career Opportunity Program System, show the project design, procedure and process, graphically.

(D) Results and Accomplishments of the Project

5.0 Results and Accomplishments

Results and accomplishments are spelled out specifically in two main portions of this report. One, previously stated in the Summary, and two, in pages 4 through 13 of the Quarterly Report, November, 1971, found in the Appendix. There are three additional items to be mentioned, however.

5.1 Linkage with Community College

Page 11 of the Central Area Schools Occupational Development Program - A Proposal indicates that there will be developed a linkage between the community colleges and the high school for purposes of occupational skills training. Preliminary contact was made in November, 1971, with Seattle Community College, Central Branch, to provide for transfer of credits in Cosmetology training for students who apply and are accepted, once the Garfield Cosmetology program becomes state licensed. A linkage in the Welding program was provided when a welding instructor at Seattle Community College, Gompers Branch, became a member of the Welding Advisory Committee. A linkage in the occupational skill of dry cleaning was established when a dry cleaning instructor at Seattle Community College, Central Branch, became a member of the Dry Cleaning Advisory Committee early in 1970.

5.2 Job Training for Dropouts

In reference to providing job training for a group of dropouts (potential or real), this is provided generally through Project Garfield, a Title VIII program especially designed to provide job training as an integral part of the student's work-study training. Job development and student placement for this project is made through the Occupational Skill Work Experience coordinator and staff (Career Opportunity Program, Work Experience Unit). Project Garfield affects the whole school population, but works specifically with a little over 300 grade nine through twelve students who have been identified as most in need of special counseling, guidance, resources, and skill building in order to remain in school. Special funds in this project provide 50 students with up to twenty hours per week at $1.60 per hour while on a job. The Work Experience coordinator, in job development, tries to sell potential employers on the fact that Project Garfield will provide funds for the project student if they would be willing to provide funds for one "regular" student and hire both. This "deal" has provided many other students with jobs who might not have been hired.

A linkage was established early in 1971 between the Seattle Public School Extended Services Program, an alternative school, and the Career Opportunity Program at Garfield to enroll ESP students in contact classes in occupational skills. Three ESP students were enrolled this Fall semester: two in Cosmetology and one in Child Care, with all three making satisfactory progress to date.

Seven students are presently in the Independent Study program: two in Algebra II, two in (New) Guitar Course I, one in Photography I, one in French VII, and one in Clothing Construction (a C.O.P. course).

5.3 Learning Personal Finances

Page 33 of the Grant Proposal indicates that in the curriculum there will be developed concepts for learning the handling of personal finances through a special business education course adapted for this purpose (particularly for those soon to go out on jobs).

Special efforts were made by the following units to teach students to handle their personal finances: (1) through the business education department courses in which units in courses in Business Principles and Procedures, Accounting I, II, and III, Business Arithmetic I, and Business Management FEAST I, II, and III; (2) through special units prepared for use as Learning Activity Packages in the Mathematics Department. Students would use the units on an individualized learning basis in the Math Resource Center Laboratory. Learning Activity Packages have been or are being prepared on the following specific items relating to personal finances: Income Tax, Budgeting Personal Finances, Business Mathematics; and (3) through special conferences and counseling in the Work Experience Unit upon application for a job or initially, at the five-week interview, and at the follow through conference. The following is stressed: "Bus fare is first"; need to put away lunch money for payroll period; if a senior, the need to save money for the senior trip, graduation and other senior events; what items are on the check; what is taken out for income tax and perhaps a need to have income tax taken out and refunded later; other savings, checking account, and banking procedures; and why it is necessary to know about organizing personal finances.

5.4 Ninth Grade Career Lab Workshop

This career education and orientation course started in the Fall, 1971, for the purpose of educating and orienting ninth graders to possible choices of occupational skills training courses. The promotion, recruitment, and counseling of students into occupational skills training while still in high school is of primary concern in the design of the course. For details see Quarterly Report, November, 1971, in Appendix.

(E) Evaluation of the Project

6.0 Third Party Evaluation

The Evaluation section was prepared by the Third Party Evaluators from University Information Services. It appears as Addendum A to this report, and covers the period December 15, 1970, through December 14, 1971. See Quarterly Report, in Appendix, for other details.

(F) Conclusions, Implications, and Recommendations for the Future

7.0 Conclusions and Implications

The conclusions are itemized in statements in the Summary section of this report. Conclusions may also be drawn from the report of the Third Party Evaluation, found in Addendum A. Any further conclusions may be redundant at this time. If anything is added, it would be to commend the staff of the Central Area Schools responsible for setting up the Occupational Skills Program at the high school on a job well done. The response from the community, including both parents and others, in trying to affect a changed educational scene for Garfield High School which would significantly influence students' attitudes and interest in school will show in future years when students who find placements in industry, trades and in community services find their places as contributing members of the adult community. Work is now moving forward in many directions to have vocational and career education be a part of the very early years and school level in a program of awareness and orientation to the world of work. Later high school years will have significant impact on students' ability to enter the entry level skills or engage in further training with the necessary equipment and experiences, so that "no student will be forced to leave school feeling ill-equipped to survive in our society."

7.1 Recommendations for the Future

The summary of this report includes statements on recommendations. The Third Party Evaluation should imply that other recommendations and courses of action be taken. These and any further recommendations will have to be the input into necessary changes in the future. The program has provided for flexibility and change in the future of occupational skills training.

7.2 Budget for Second Year

The Proposed Federal Part D Funding for Second Year Twelve Month Period follows, as Chart A.

CHART A

PROPOSED FEDERAL PART D FUNDING
FOR SECOND TWELVE MONTH PERIOD

EXEMPLARY PROPOSAL NO. 1-361-01-68
CONTRACT NUMBER: OEG-0-71-1171(361)
PERIOD OF GRANT: 12/15/71 - 12/14/72

	EXEMPLARY FUNDS	OTHER FUNDS	TOTAL
GUIDANCE & COUNSELING			
Middle School			
Curriculum Development Specialist			
Vocational Guidance Counselor/s (2)	$ 23,200	$ 24,000	$ 47,200
Secretary			
Subtotal	$ 23,200	$ 24,000	$ 47,200
High School			
Vocational Education Specialist	$ 15,300		$ 15,300
Curriculum Development Specialist	15,000	14,400	29,400
Director Work Opportunities Center	13,750		13,750
Part Time Specialists as Needed in Areas of Curriculum, Facilities, Personnel	2,000	30,000	32,000
Vocational Guidance Counselor	13,500	23,600	37,100
Job Placement Coordinator & Staff		16,000	16,000
Secretary (2)	14,000		14,000
Supplies	4,000	19,000	23,000
Subtotal	$ 77,550	$103,000	$180,550
EMPLOYEE BENEFITS			
Middle School	$ 1,398	$ 1,425	$ 2,823
High School	6,417	9,234	$ 15,671
Subtotal	$ 7,815	$ 10,659	$ 18,474
PLANNING & STAFF TRAINING			
Day Care Personnel & Other Costs	$ 6,000	$ 32,000	$ 38,000
In-Service Training Personnel and Consultant Costs	6,259	18,500	24,759
Subtotal	$ 12,259	$ 50,500	$ 62,759
VOCATIONAL TRAINING PROGRAMS			
Automotive Services			
Auto Mechanic Instructor (1)	$ 11,000	$ 42,000	$ 53,000
Remodeling			
Equipment			
Supplies & Resale Supplies		42,000	42,000
Subtotal	$ 11,000	$ 84,000	$ 95,000

(Continued)

PROPOSED FEDERAL PART D FUNDING
FOR SECOND TWELVE MONTH PERIOD

EXEMPLARY PROPOSAL NO. 1-361-01-68
CONTRACT NUMBER: OEG-0-71-1171(361)
PERIOD OF GRANT: 12/15/71 - 12/14/72

	EXEMPLARY FUNDS	OTHER FUNDS	TOTAL
Welding			
Instructor	$	$ 2,000	$ 2,000
Remodeling	10,000		10,000
Equipment		4,000	4,000
Supplies	3,650	2,000	5,650
Subtotal	$ 13,650	$ 8,000	$ 21,650
Construction			
Instructor	$	$ 6,000	$ 6,000
Consultant			
Equipment			
Supplies		4,500	4,500
Subtotal	$	$ 10,500	$ 10,500
FEAST			
Instruction	$	$ 7,000	$ 7,000
Remodeling			
Equipment	3,000		3,000
Supplies	3,000	4,000	7,000
Subtotal	$ 6,000	$ 11,000	$ 17,000
Contracted 3rd Party Evaluation	$ 5,000	$	$ 5,000
TOTAL	$156,474	$301,659	$458,133

ADDENDUM A - Third Party Evaluation

SEATTLE PUBLIC SCHOOLS

GARFIELD HIGH SCHOOL
EXEMPLARY PROGRAM

A PART OF

THE CAREER OPPORTUNITY PROGRAM
AT GARFIELD HIGH SCHOOL

AN EVALUATION

UNIVERSITY INFORMATION SYSTEMS
1107 SENECA STREET
SEATTLE, WASHINGTON 98101

(206) 623-0900

PHILIP H. GAYTON
MANAGING PARTNER

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ACKNOWLEDGEMENTS

The Contractor would like to extend its thanks to the following people for their assistance in preparation of this assessment.

Mr. H. Lynn Caldwell, Associate Principal, Garfield High School, and Director, C.O.P.

Dr. Louis Wildman, Curriculum Development Coordinator

Mr. Milton Price, Director of the C.O.P. work centers

Mr. Thomas Miller, Career Opportunities Specialist

Mrs. Helene Schuller, Assistant Curriculum Coordinator

Mr. Donald Hunt, Title VIII Evaluation Office

Mrs. Tee Broughm, Records Office Manager

Mr. Robert Hollins, Attendance Office

Miss Chardelle Kern and Mrs. Myra Bezuk, Secretaries, C.O.P.

Their cooperation and understanding made our tasks considerably easier. Information and opinions were given freely and promptly. All those involved made themselves accessible to the Contractor without hesitation. Had this support for our efforts not been forthcoming, the task of preparing this report would have been far more difficult than was actually the case.

INTRODUCTION:

Garfield High School is located in the Central Area of Seattle, Washington. The present student population in the four grade levels (9-12) is slightly more than one thousand. There are presently 95 people on the teaching and administrative staffs. There are two campuses: Garfield "A", located at 23rd Avenue and Jefferson Street, and Garfield "B", located at 21st and South Jackson Street.

Over the past five years, Seattle High Schools have experienced some serious problems. These include:

a. More than a 100% increase in student dropout rates district-wide. Dropouts in 1967-68 totaled 1854 high school students, or 8.7% of the total student population in the high schools.

b. A serious city-wide decline in average pupil achievement scores at all grade levels, as compared to national averages.

c. A 41% increase in offenses involving school property and other student crimes in Seattle High Schools since 1968.

d. Suspension rates in excess of 8% for the school year 1968-69.

e. In 1968-69, the absentee rate for all city high schools was 10.6%.

In addition, enrollment at Garfield High School has decreased by more than 500 students since 1962-63. Also, more than half of the teaching staff at Garfield has requested to be transferred away from the school since 1966. The schools in every major urban area in the nation have been and are experiencing similar types of problems, to a greater or lesser degree. It must be emphasized that these problems are not unique to Seattle High Schools or to Garfield.

However, a core of teachers and staff at Garfield, together with dedicated community people and an active community-school council, have made significant efforts to remedy some of these problems.

The initiation of the Career Opportunity Program (C.O.P.) for the enhanced development of occupational skills has been one such effort. Other significant developments include intensified student counseling, team teaching, independent study, individualized programmed learning and unique scheduling of classes. It is hoped that these efforts, and others, are leading to meaningful improvements in the educational environment for students at Garfield High School.

We concern ourselves in this evaluation with the present status of the Career Opportunity Program at the Garfield "B" Campus.

The Career Opportunity Program (C.O.P.) was initiated at Garfield "B" in the Fall of 1970. Planning for the program, however, began in January, 1970, and included support from many areas. These include the students, faculty and staff at Garfield, the Central Area Citizens Committee, Inc., the education Task Force of the Seattle Model City Program, interested persons from the community and from industry, and school officials. A C.O.P. task force was established, and on July 1, 1970, a comprehensive proposal was submitted to the U. S. Department of Health, Education and Welfare.

The final go-ahead decision was made prior to the start of school in September 1970. The Federal Grant from the Department of Health, Education and Welfare in the amount of $109,861.00 was not awarded until March 5, 1971. The effective period of the present grant is December 15, 1970, through December 15, 1971. Added funds to support this project were obtained from the Seattle Model City Program.

PROGRAM ORGANIZATION:

The Career Opportunity Program at Garfield High School is directed by Mr. H. Lynn Caldwell, Associate Principal at Garfield. The C.O.P. staff is as follows:

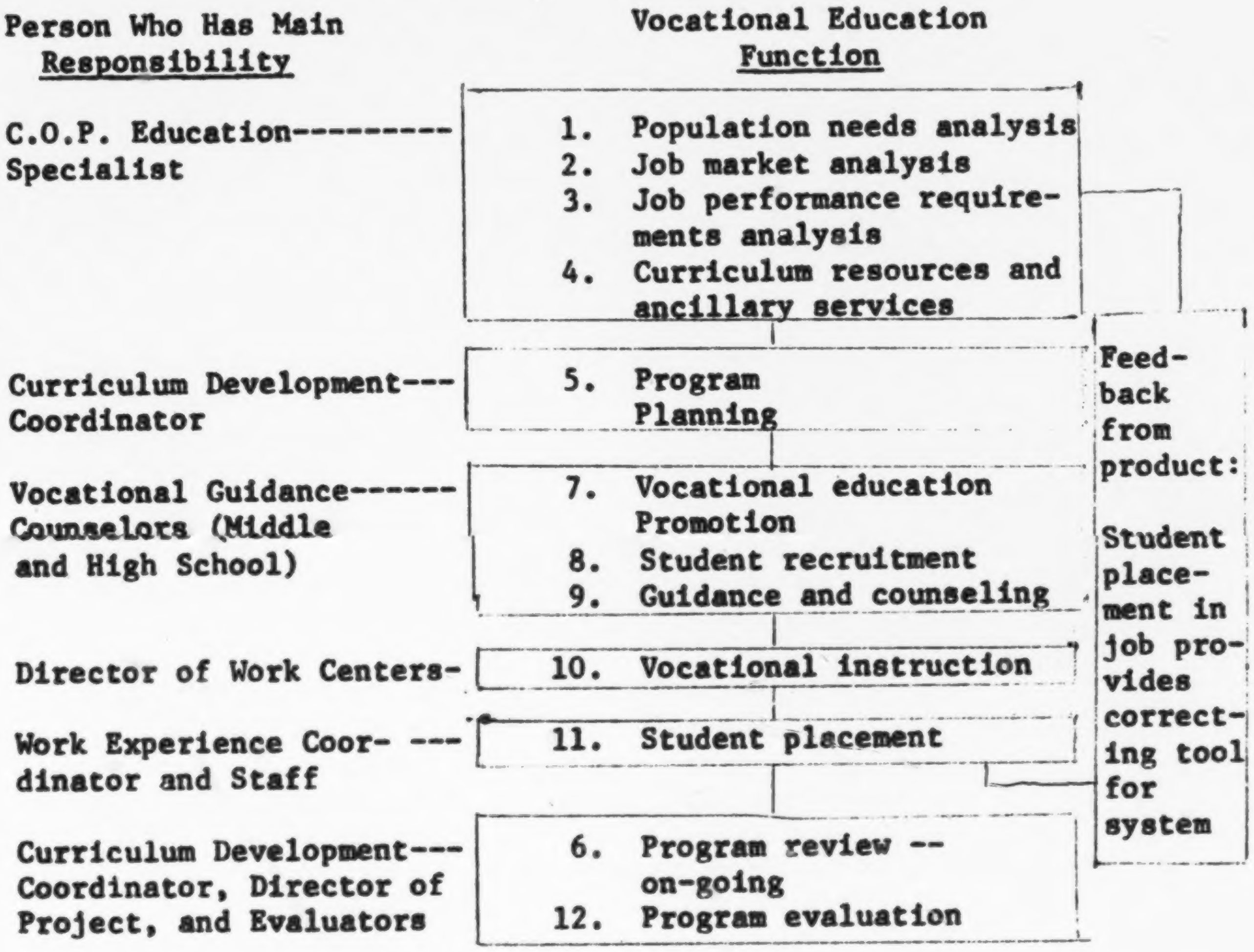
Louis Wildman, Curriculum Coordinator
Thomas Miller, Career Opportunity Specialist
Milton Price, Director of Work Centers
Helene Schuller, Assistant Curriculum Coordinator
William Fotheringham, Financial Officer
Helen Burton, Work Experience Coordinator; Judy Town, Specialist
William Hopf and Sandy Fujita, Counselors
Chardelle Kern and Myra Bezuk, Secretaries
Institutional Consultants.

The organization chart for the Program is included in Appendix A. However, because of replacements and reassignments, it does not appear to the Contractor that this organization chart is being strictly adhered to. However, it is in the process of being revised to reflect the existing relationships between the members of the C.O.P. administration and staff. The C.O.P. has several features. These include:

1. Career education as a regular part of a comprehensive school curriculum.
2. Work opportunity centers on campus and in the community.
3. Provision for special short-term training of students just prior to graduation.
4. Student job placement coordinated by a work-experience staff.

5. Middle school integration of career education curriculum (not yet established).

The functions of vocational education within the C.O.P. have been summarized and rendered in chart form by Dr. Louis Wildman, the Curriculum Coordinator, and Mrs. Helene Schuller, the Assistant Curriculum Coordinator, for the C.O.P. This chart appears below: [1]



Person Who Has Main Responsibility	Vocational Education Function
C.O.P. Education Specialist	1. Population needs analysis 2. Job market analysis 3. Job performance requirements analysis 4. Curriculum resources and ancillary services
Curriculum Development Coordinator	5. Program Planning
Vocational Guidance Counselors (Middle and High School)	7. Vocational education Promotion 8. Student recruitment 9. Guidance and counseling
Director of Work Centers	10. Vocational instruction
Work Experience Coordinator and Staff	11. Student placement
Curriculum Development Coordinator, Director of Project, and Evaluators	6. Program review -- on-going 12. Program evaluation

Feedback from product:

Student placement in job provides correcting tool for system

---

[1] Quarterly Report, Central Area Schools Occupational Development Program, Seattle Public Schools, November 1971, p. 15.

The Career Opportunity Program at Garfield High School provides for a comprehensive curriculum designed to afford the individual student pre-vocational training for the development of a marketable occupational skill by the time he (she) graduates from high school. The overall goals, as a part of the approved statement of work, provide as follows:[2]

1. Establishment of career areas and job clusters to provide a broad, comprehensive curriculum with ample opportunities for optimal exploration and development of talents and capabilities of students.
2. Development of teaching and instruction modes in these career areas and job clusters to guarantee such development.
3. To increase significantly the employability of high school students and graduates by providing skill enhancement and occupational training during high school years.
4. To insure that every student who graduates or terminates has a job-marketable skill.
5. To provide on-the-job training and follow-up on work opportunities for in-school students part-time and during the summer, and for graduates full-time work or college placement.
6. To establish technical advisory groups composed of people from the local community, schools, labor and management and other experts to (a) help specify and identify career areas and usable student skills, (b) identify potential job opportunity areas, and (c) develop a comprehensive program for eliminating racial discrimination in job placements.

[2] Source: Quarterly Report, Central Area Schools Occupational Development Program, Seattle Public Schools - November 1971, p. 8.

Note: Objectives 1-10, as written here, were not included in the original proposal submitted to D. H. E. W. in July 1970.

7. To individualize the curriculum and instructional methods for each student by providing courses which emphasize updated job skills and which are stated in terms of behavioral objectives and appropriately sequenced.
8. To provide funds for the necessary materials and appropriate staff to carry out project operations and achieve stated goals, and to provide for necessary changes in direction and effort to achieve a quality program.
9. To increase student academic achievement by a statistically significant degree as compared with the present levels.
10. To establish self-sustaining work opportunity centers operated by the school which will aid in providing the student on-the-job training and experience.

As a specific control measure, a list of first year objectives for the Garfield Examplary Program (C.O.P.) was developed by Mr. H. Lynn Caldwell, present Director of the program and Associate Principal at Garfield "B" campus. It was against the specific first year objectives as shown below that the Contractor attempted to measure project performance. These objectives are:

1. To plan and develop limited operation of a Food Education and Service Training Program (FEAST).
2. To plan and develop limited operation of an Auto Service Program.
3. To plan and develop limited operation of a Construction Program.
4. To plan and develop limited operation of a Welding Program.
5. To establish "technical advisory groups" in the skill areas of FEAST, Auto Service, Construction and Welding.
6. To individualize the curriculum for each student by providing

courses which emphasize updated job skills, which are stated behaviorally, and with appropriate sequence.

7. To provide in-service training for the staff members on the methods of developing Learning Activity Packages (LAP).
8. To enroll one-fourth of the student body or 250 students in an occupational development program.
9. To decrease absenteeism of the 250 students or one-fourth of the student body by 20%.
10. To change the attitude of 250 students or one-fourth of the student body toward the school.
11. Specific to those Occupational Development Program students with a g.p.a. less than 2.0: [see note, p. 8]

    Assumptions:

    1. Occupational Development Program enrollment g.p.a. will be less than 2.0 .
    2. Student must remain in the program for a minimum of one (1) semester.

        11.a. A 50% increase in semester g.p.a. per academic area will occur as compared to the Occupational Development Program enrollment base line cumulative g.p.a. per academic area.

        11.b. Provided the student continued enrollment in the Occupational Development Program, the 50% increase in academic area g.p.a., as compared to the enrollment base line g.p.a., will be maintained throughout the student's enrollment in the Occupational Development Program.

12. To develop linkage between the middle school program and the high school occupational development program.
13. To develop at least two work opportunity instructional areas.

Note: Specific to Item 11, the Contractor has been unable to determine g.p.a. changes on a per academic area basis. Reasons for this are given on pages 34 through 35 of this report. A modified statistical analysis was performed on total g.p.a. changes for a random sample of students with g.p.a. less than 2.0 as of the beginning of the Fall 1971 semester.

RECOMMENDATIONS:

The Garfield Exemplary Career Opportunities Program appears to have met or surpassed many of its stated first year objectives and plans. The Program has had considerable success in coordinating and utilizing resources and expertise from a wide range of community and school sources. Program planning and development was completed in a relatively short period of time. However, in its first two and one-half semesters of operation, it has manifested several significant problem areas. These include:

1. Some difficulties experienced with the utilization of stated behavioral objectives as student performance indicators.
2. Failure of the program to establish a significant linkage with the middle school program.
3. Lack of continued participation and utilization of the technical advisory councils and the Garfield Parent Advisory Council.
4. A review of the course offerings needs to be made to determine their relevance to the job market skill projections for the State of Washington over the next ten years.

In light of these, and some more specific problems dealt with in the assessment section of this report, the Contractor makes the following recommendations:

1. Behavioral objectives for the students in the C.O.P. should be updated so as to reflect the abilities and interest extant in that student population. Furthermore, these behavioral objectives

should be integrated and dovetailed with the Learning Activity Packages and daily measures of student performance so as to guarantee the student's success in meeting the stated behavioral objectives. On-going program changes and student remediation would thereby be facilitated.

2. A significant linkage with the Middle School programs should be established as soon as possible.
3. The C.O.P. introductory lab. and workshop curriculum should be redesigned to afford more interesting and meaningful experiences for students entering the C.O.P.
4. Participation by members of C.O.P. administration, staff and faculty in meetings with the technical advisory groups should be increased.
5. Welding program new facilities should be developed and made operational as soon as possible, and no later than September, 1972.
6. The auto service station and auto-tech curricula should be combined and every effort made to eliminate redundancies in these two areas. A single, comprehensive program in all aspects of auto mechanics and auto service retailing will better meet the needs of the individual student than the present separate programs.
7. Learning Activity Package in-service training should continue. Future workshops should be more carefully planned and more appropriately scheduled than the one held in August, 1971.
8. In-house evaluation of all aspects of C.O.P. operations should be

established and maintained. The Contractor has been informed that work is being done to establish such evaluation procedures. This should be encouraged and given strong emphasis in the ensuing years of the Program's operations.

Because of specific contract limitations, the Contractor was unable to address itself to several other related problem areas. The Contractor would have welcomed the opportunity to evaluate, comment upon and make recommendations concerning the following problems areas within the Garfield Exemplary Program:

A. An absence of any realistic determination of cost-effectiveness of the courses offered in the C.O.P., specifically in relation to job placement success and alternative vocational skill areas.

B. The appropriateness and means of determination of the present vocational training curriculum in the Exemplary Program.

C. The lack of any data concerning student, faculty, staff or advisory committee opinion and response to the Exemplary Program.

D. Existing strengths and weaknesses in the overall administration of the program.

E. Adequacy of the present job placement efforts within the Garfield Exemplary Program.

The Contractor is of the opinion that the Exemplary Program administrators, faculty and staff should be clearly aware of these potential problem areas. If the C.O.P. is to be a self-sustaining successful program, these problems must be dealt with and solved as they arise. The initial history of the C.O.P. is encouraging, but there is no guarantee of long-run success. Too much enlightened effort, leadership, money and time have been expended to allow the program to rest upon its apparent present progress.

STATEMENT OF METHODOLOGY:

This evaluation has been performed by University Information Systems, Inc., under a contract with the Seattle Public Schools. The Contractor's methodology was as shown below.

All pertinent written materials concerning the background, development and operation of the Garfield Exemplary Programs, including the original Project Proposal, curriculum materials, in-house evaluation reports, et., were carefully scrutinized. The following is a list of the material reviewed by the Contractor:

1. Central Area Schools: Occupational Development Program (Proposal submitted to the U. S. Dept. of Health, Education and Welfare 7/1/70).
2. List of Prerequisites and Behavioral Objectives for Courses Taught at Garfield High School (Garfield Staff, Summer, 1971).
3. Curriculum material and course outlines for all courses contained in the C.O.P.
4. Quarterly Report, Project No. 1-361-0168 Contract No. OEG 0-71-1171-(361) Central Area Schools Occupational Development Program: Nov. 1971, Seattle Public Schools, H. Lynn Caldwell.
5. Projection of Occupations Trends Through 1975, Washington State Dept. of Employment Security, Olympia, 1971.

Following the careful analysis of the above material, in-depth interviews were held with key C.O.P. staff members. Those interviewed were:

Mr. H. Lynn Caldwell, Director and Associate Principal

Dr. Louis Wildman, Curriculum Development Coordinator

Mr. Milton Price, Director of Work Centers

Mrs. Helene Schuller, Assistant Curriculum Coordinator

Mr. Thomas Miller, Career Opportunity Specialist

Mr. Donald Hunt, Title VIII Evaluation Office

The more salient results and pertinent comments derived from these interviews have been summarized and incorpated into this report. Additionally, the Contractor observed the Career Opportunity Program workshop on learning activity packages held for teachers and administrators at Garfield during the week of August 23, 1971.

Statistical data collection was performed at the Garfield "A" campus records office. Attendance records were obtained from the attendance office at Garfield "A". Standard statistical tests were performed to determine means and standard deviations for the sample populations. Variance analysis was performed upon the sample data utilizing the "t-distribution" method. See Appendix D for the compilation of that data.

Finally, on-site observations were performed by the Contractor of the C.O.P. facilities under discussion. Brief conversations were held with the teachers who were present during these observations.

ASSESSMENT:

The Contractor has been instructed to determine the extent to which the first year objectives of the Garfield Exemplary Program, as shown in the introductory section of this report, have been accomplished.

The reader will understand that the Contractor has been instructed to limit his activities to evaluating only those objectives and plans referred to above, as developed by the Director of the Program. This assessment will proceed, therefore, to treat each item in that list of plans and objectives separately and in sequential order.

Item 1: To plan and develop limited operation of a Food Education and Service Training Program (FEAST).

The FEAST program of the Garfield Exemplary Program became fully operational in March 1971. All facilities are located in room 130 at the Garfield "B" campus. (See Appendix B for floor plan.)

These facilities include a complete professional kitchen and food preparation area. A dining room complete with cash register adjoins the kitchen facility.

Students are given complete instructions in all the aspects of professional food management, preparation and service, including cashiering. Courses are offered in food preparation and management, business math and language arts associated with all phases of food management. All students must have junior standing to enroll and must maintain a C average to continue in the courses. Each student must enroll in all three phases of the program, and finally, must have faculty permission to enter the program.

The basic behavioral objectives are as follows:

A. The student will demonstrate correct basic preparation methods for all foods covered in the course.

B. The student will be familiar with and be able to explain the basic preparation methods associated with each of the "basic food groups".

C. The student will demonstrate knowledge of the correct care and use of all equipment to be used with the specific food item in the course.

D. The student will apply safety and sanitation standards and regulations pertinent to the specific products or food items or equipment with which he is working.

E. The student will demonstrate knowledge of all aspects of food handling including storage, costing and shopping related to specific products through practical application.

F. The student will incorprate food items in each unit into a well-balanced, aesthetically pleasing menu.

Mrs. Bonnie Peakes is the head teacher and directs the FEAST Program. Mrs. Robbie Jackson, who teaches business math, doubles as the math teacher for the FEAST Program.

Enrollment for the Spring 1971 semester totalled eight students. Enrollment for the Fall 1971 semester totals 26 students.

In summary, the first year objective of planning and developing limited operation of the FEAST Program has been met and well surpassed.

Item 2: To plan and develop limited operation of an Auto Service Program.

The Auto Service Program of the Garfield Exemplary Program is fully operational at this date. The program is divided into two phases or parts:

the Auto-tech program and the Service Station program.

The Auto-tech program is housed in a newly constructed building at the Garfield "B" campus, located to the southeast of the main building. It was completed in February, 1971. The building is steel frame, has a 25-foot ceiling and a large mezzanine at its north end. Total floor space, including the mezzanine, offices and a classroom, is 7200 square feet. The major part of the ground floor is a complete professional automobile service shop. There are two air lifts, a floor well, an alignment machine, overhead hoists for removing engines and a complete complement of tools and other equipment, as well as a parts department.

The facilities for the auto service station phase of the auto-tech program is located at the Mobil gasoline station at 901 Rainier Avenue South. Students attend classes for this program in the portable classrooms at the Garfield "B" campus, and then work at the service station after school and on weekends. Each student works about 5 hours per week.

The two programs are meant to be complementary. Students must first enroll in Auto Tech I, the first course in automotive mechanics. After this, they can either enroll in the service station courses, or continue in the auto-tech program, or both. The present situation is that the two programs tend to be mutually exclusive. However, planning is being conducted to combine the two programs into one completely comprehensive unit, affording the individual student more freedom to choose his own direction within the program. It is hoped by the C.O.P. staff that this combining effort will be successfully completed before September 1972.

Students presently in the auto-tech program follow a sequential series of three courses; Auto Tech I, II and III. Successful completion of each is a prerequisite for advancement to the next. The courses are designed to be a comprehensive introduction to all the mechanical aspects of the automobile.

While the behavioral objectives are too lengthy to list here, they may be found on pages 240-243 of Behavioral Objectives for Courses Taught at Garfield High School. Suffice to say that when a student successfully completes the entire curriculum, he is fully knowledgeable in all aspects of automotive service and repair.

Mr. Michael Madison is the instructor and head of the auto-tech program. Enrollment for the Fall semester 1971 totals 120 students. Mr. Madison feels that his work load is prohibitive, and would be considerably eased by the presence of another instructor and at least half-time clerical help. At present, Mr. Madison does all teaching, maintenance of equipment, clerical and reporting tasks, and orders and manages parts.

The behavioral objectives for the service station component of the program are also too lengthy for inclusion here. A complete list of these objectives can be found on pages 304-324 in Behavioral Objectives for Courses Taught at Garfield High School. The student receives training and instruction in all aspects of retail auto service. He is provided with not only mechanical skills, but business, sales and service station management experience as well.

The student must have a valid Washington State driver's license, and be able to read price sheets, catalogs and mechanical specifications. He must also have some experience in math, and be prepared to work out of doors.

The instructor for the program is Mr. Ken Hansen. Present enrollment for the Fall 1971 semester totals 28 students. Enrollment for the Spring 1971 semester totaled 7 students.

In summary, the first year objective of planning and developing limited operation of an auto service program has been achieved. The Contractor strongly urges, however, that every effort be made to eliminate redundancies in the two programs and that they be combined into a single, comprehensive program with a complete mix of courses and training.

Item 3: To plan and develop limited operation of a Construction Technology Program.

The construction technology program has been fully operational since the beginning of the school year 1970-1971. Classes are held in rooms 7 and 10 at the Garfield "B" campus.

The students in the construction technology program, during the Spring 1971 semester, built a complete vacation cottage in the parking lot at Garfield "B". The house was designed by Bridges and Burke, Architects, a Seattle firm. It has 900 square feet of floor space and contains approximately $3,200 worth of raw materials. The project was a joint effort, and included efforts by students in the mechanical drawing classes and the electrical worker classes as well as the students in construction technology. The house is built and wired and complies to the building and electrical codes of the City of Seattle.

The Fall semester 1971 classes are in the process of constructing practice wiring displays for use indoors. Provisions are also being made to provide space in one of the portable classrooms at Garfield "B" for construction work to be performed indoors. It was decided that another outdoor project was inadvisable because of environment problems associated with working out of doors.

Students in the construction technology courses must be physically fit with no major handicaps, and must be willing to work in extreme environments. They must be able to perform basic arithmetic skills and have a working knowledge of the basic units of measurement.

The behavioral objectives are, in summary, as follows:

The student will have knowledge of all aspects of professional carpentry.

The student will be capable of serving his apprenticeship in the carpenter's union.

He will be familiar with all aspects of contracting, and with the duties of all workers on a contracting project.

He will be familiar with all aspects of the organization of the construction trades.

He will be capable of solving specified construction problems.

The instructor for the program is Mr. Otha Burnside, who is also the head of the Department of Industrial Arts at Garfield "B". Enrollment for the Fall 1971 semester totals 15 students. Enrollment for Spring 1971 semester totalled 13 students.

In summary, the first year objective of developing limited operation of a Construction-tech program has been achieved.

Item 4: To plan and develop limited operation of a Welding Program.

The Welding Program at Garfield "B" is only partially operational at this date. The welding facilities are located in the southwest corner of the metal workshop in room 6 on the Garfield "B" campus. The facility is a carry-over from the old welding program which existed prior to the development and inception of the Garfield Exemplary Program. The facility is small and cramped, and is separated from the metal work area by only a portable partition.

However, plans have been made to perform extensive renovation in room 7 at Garfield "B", where the Construction Technology classes are now being held. This renovation will include the construction of 7 new welding booths and additional work and storage areas. A partial floor plan of the new facilities appears in Appendix C. The total cost of the renovation will be approximately $10,000. The renovations are expected to be completed in time for the start of the Fall 1972 semester.

A formalized set of behavioral objectives for the welding program does not exist at present. However, Mr. Henry Bell, the welding instructor, and Dr. Louis Wildman, the Curriculum Coordinator of the C.O.P., have developed a preliminary set of objectives for the students in the welding program. These are in the process of refinement.

Enrollment in the welding program for the present Fall 1971 semester totals 12 students. Enrollment figures for the Spring 1971 semester have not been made available to the Contractor.

In summary, then, the welding program is operational, but present facilities are felt to be inadequate. The program planning has been completed. The program is expected to be fully operational and utilizing the planned new facilities by September 1972.

Item 5: To establish "technical advisory groups" in the skill areas of FEAST, Auto Service, Construction and Welding.

Technical advisory groups have been established for the following skill areas within the C.O.P.:

1. FEAST
2. Welding
3. Construction
4. Sewing for profit
5. Retailing (Distributive Education)
6. Drafting
7. Child Care
8. Service Station (Auto Service)
9. Dry Cleaning
10. Cosmetology
11. Nurses Aides
12. Career Lab
13. Oral Health

The technical advisory groups in items 1 through 7 above, have school district-wide responsibility, but they also service the Garfield Exemplary Program. The committees in items 8 through 13 exist exclusively for consultation to the Garfield Exemplary Program.

These technical advisory groups are constituted of persons from the community, industry and the school district who have expertise in the various skill areas for which the technical advisory groups are responsible. The positions are all voluntary.

At this date, the primary problem with the utilization of the technical advisory groups has been a lack of participation by the technical advisory groups in on-going operations and planning efforts of the C.O.P. Additionally, it is felt that perhaps the constituency of these committees may not realistically represent or understand the true needs and problems of Central Area students, especially in relation to:

- job placement
- resource utilization both inside and outside the C.O.P.
- the existing limitations and capabilities of the particular student population being served.

Mr. Thomas Miller, the Career Opportunity Specialist, is directly responsible for coordinating the efforts of the technical advisory groups. He is new to the job this Fall (1971). He is presently encouraging increased participation on the part of the technical advisory groups so as to improve utilization of the extensive resources and expertise of these groups. He is also attempting to recruit additional members for those technical advisory groups who will commit and address themselves adroitly to the problems cited above.

In summary, the first year objective of establishing technical advisory groups in all skill areas within the C.O.P. has been achieved, although the effectiveness of some panels is presently questionable.

Item 6: To individualize the curriculum for each student by providing courses which emphasize updated job skills, which are stated behaviorally and are appropriately sequenced.

The curriculum of the C.O.P. has been carefully planned to achieve this goal. In the original planning phase for the program, many resources were utilized in determining curriculum content and scope. Area manpower projections from the Washington State Department of Employment Security, consultations with interested members of the Central Area community, the

Seattle business community and Seattle school administrators, as well as students, faculty and staff at Garfield, were all utilized in determining the course offerings of the C.O.P.

Behavioral objectives for all courses in the C.O.P., with the exception of welding, have been written and appear in the manual Behavioral Objectives for Courses Taught at Garfield. These behavioral objectives are complete and comprehensive, and are intended as minimum performance indicators for students. However, additional efforts are needed to correlate and integrate these objectives with the Learning Activity Packages which have been developed to individualize curricula for each student. Simple utilization of the behavioral objectives as performance parameters without specific reference to their relationship to the curriculum content and programmed instruction format for each course area results in those objectives being only partially useful for program monitoring. Control of course emphasis thereby becomes a problem, and remediation for under-achieving students is greatly hindered.

There is presently an in-service program within the C.O.P. to attempt a revision and up-dating of the stated behavioral objectives. Dr. Wildman feels that they need to be stated more realistically in light of present C.O.P. program experience.

In addition, the Learning Activity Packages are to be rewritten during the remainder of 1971-1972 school year in those specific areas in each class where students have experienced the most difficulty in meeting the stated behavioral objectives.

Finally, Statements of Excellence are to be written for each major course area within the C.O.P. These will be employed as an adjunct to the behavioral objectives to measure student performance. These statements of excellence will be rendered in terms of equivalency requirements for certification of the individual student, rather than in terms of specific desired behavior. In summary, the first year objective of individualizing the curriculum and developing behavioral objectives has been achieved.

Item 7: To provide in-service training for the staff members on the methods of developing Learning Activity Packages (LAP).

A Garfield Career Opportunity Workshop on learning activity packages was held August 23-27, 8:00 a.m. through 1:00 p.m. daily, at Garfield "A". The workshop was conducted by A.I.D.S., Inc., a Seattle consulting firm, under contract with the School District.

Initial plans called for twenty-five teachers from Garfield "A" and "B" campuses to be involved in the workshop. This was later changed to thirty-three teachers, and changed again to thirty-three teachers and nine administrators that were ultimately involved in the workshop.

One objective of the workshop was to provide the participants with professional technical assistance and resource materials to assist them in acquiring skills and techniques needed to develop individualized program learning packages for each subject area.

Another objective was to expose the teacher to techniques to be used to control the instructional environment. Further, the teachers were shown how to use audio-visual aids and training materials to make their presentations to students easier and more interesting.

The workshop proposal and the participants resource books which detailed the objectives of the workshop were given to each participant (see Appendix E). Likewise, distributed for use were reference materials which detailed the learning activity package approach, the prerequisites and behavioral objectives for each course taught, and a course outline for each core subject.

Plenary sessions of the workshop were held in the Activity Center at Garfield "A". The workshop was held in an informal atmosphere. Task-oriented, educational student support teams were formed and small group seminars were held. (See Appendix E for team breakdown).

Small group seminars focused on the development of the team teaching approach in problem solving. A wide variety of issues were discussed during seminar sessions, including how the teachers should plan and work with guidance and community counselors, the attendance supervisor, media development center personnel and the career opportunity team. Emphasis was placed on motivating toward students' independent study in the subject area of his choice.

In the Activity Center, teachers were grouped in pairs when working to complete the learning activity modules and when planning their instructional units.

The Contractor observed the workshop proceedings for four of the five sessions. The Contractor also observed some small group seminars. Our observations and/or conclusions reached are as follows:

1. Greater care and planning should have been given to the selection of the participants. Perhaps a pre-test should have been given to participants prior to the workshop to determine their background and level of experience and knowledge in working with the materials presented. The Contractor observed that many participants had used individualized learning activity packages in their classrooms over the past three to four years. These knowledgeable teachers quickly grasped the meaning of the materials presented and articulated their concerns with a level of sophistication that was obviously above average. On the other hand, there were participants who appeared to have little or no prior exposure to

the learning activity package concept. This was particularly true of many Career Opportunity Program instructors. In the opinion of the Contractor, the uninitiated teacher or instructor was at a clear disadvantage in that this was his first exposure to materials and program learning methods that had to be understood, developed and ready for use in the classroom by the beginning of the Fall quarter. To the teacher or instructor who had had prior exposure to the learning activity package approach, most of the materials presented must have appeared redundant.

2. The duration of the workshop was too short to accomplish its objectives. For example, to develop and complete the learning activity package module, each participant needed time to organize and put down in writing an overall plan of operations. The overall plan, in turn, was to be broken down into major units of instructions and further detailed into individual increments of instructions. The participants were also expected to: develop a complete list of instructional materials; develop a complete list of visual and training aids; learn new techniques for classroom management; plan to use the learning resource center as a place for individual student study; develop an occupational readiness record; learn to develop and use student progress/performance records; and, to write at least one learning activity package for one unit. In the opinion of the Contractor, these were ambitious tasks for even the most experienced participant, given the time limitations of the workshop as a whole, and given the fact

that some time was spent in small group seminars. To the uninitiated participant, these tasks, if properly understood and executed, must have appeared staggering, to say the least. In our opinion, the unitiated participant should have been given a minimum of one month of in-service training if he were to gain complete mastery of the learning activity package. Considerable practice time was needed so that the teacher or instructor would feel comfortable in presenting materials to students.

3. The Contractor believes that there was a shortage of knowledgeable and experienced resource persons available to the participants for each core subject area, i.e., science, math, language arts, C.O.P. vocational subjects, etc. The resource person should have also possessed a thorough knowledge of how to develop and write individualized learning activity packages. Had such resource persons been available to those participants who had had little or no prior exposure to the individualized learning approach, those participants may have been able to complete the objective of writing one learning activity package for one unit within the time span of the workshop.
4. Average daily attendance for the five days varied widely. The Contractor observed that on several occasions participants wandered in and out of the workshop to take care of other business such as getting their contracts with the school district signed. Perhaps it would have been better to plan the workshop earlier in the summer or plan it at a time when such schedule conflicts could have been held to a minimum.
5. The physical arrangements in the Activity Center were not conducive

to serious concentration and study. In the opinion of the Contractor, the room was too large and the noise level too high.

6. The effectiveness of the small group seminars is open to question. For example, the Contractor observed that in one seminar held on guidance counseling, the purpose and objectives of the seminar were not clearly articulated. Also, some of the key persons who were scheduled to attend that session were not present.

In sum, the Contractor believes that the planning for the workshop was inadequate. In the future, we recommend that workshops of this kind be carefully thought through and the participants selected far enough in advance to obtain their input for inclusion in the planning process. More resource persons, particularly experts in each subject area, should be made available to workshop participants. And, lastly, we recommend that the workshop be held at a time and in a place which will minimize disruptions and schedule conflicts.

Item 8: To enroll one fourth of of the student body or 250 students in the C.O.P.

Student enrollment in the C.O.P. for the Spring 1971 semester totalled 317 students. Enrollment for the Fall 1971 semester totalled 297 students, or a decrease of 6.3% as compared with Spring 1971 levels. Both figures are well above the stated enrollment goal of 250 students. This is a considerable achievement for a program which has been in operation only two and one-half semesters.

While continuing participation in the C.O.P. on the part of individual students was not a stated goal of the first year plans, the Contractor determined that student carry-over from Spring to Fall 1971 semesters was only about 10%. It must be noted, however, that the program has only been in full operation for less than a year, and substantial carry-over is not necessarily to be expected at this early date.

In summary, the first year objective of enrolling 250 students in the C.O.P. has been met and surpassed.

Item 9: To decrease absenteeism of the 250 students enrolled in the C.O.P. by 20%.

Mr. Robert Hollins in the attendance office at Garfield "A" provided the Contractor with the necessary data to make an analysis of absentee data for the Fall 1971 semester through November 30, 1971. Mr. Hollins informed the Contractor that the attendance data for the school year 1970-1971 was in a form that rendered it unusable for the present analysis.

To determine absentee rate changes, the Contractor took a random sample of all the students enrolled in the C.O.P. for the Fall 1971 semester. The sample size was 30. The number of class cuts for each of the students in the sample was derived from the attendance records for two separate time periods: September 1, 1971 through November 4, 1971, inclusive (1st quarter) and November 5, 1971 through November 30, 1971, inclusive (first one-third of the 2nd quarter). The data for the second time period was then extrapolated upward to render the two time periods of equal length. (The assumption inherent in this method is that absentee rates for the first one-third of the second quarter will remain the same for the balance of the quarter. Actually, according to Mr. Caldwell, they probably have a tendency to increase).

Because of excused absences, three suspensions for absenteeism and other reasons, the final sample size was reduced to 21. For this sample, simple variance analysis was performed, with the following results:[3]

	Time Period 1	Time Period 2
Total Class Cuts	432	802
Average Cuts per Student	20.57	38.19

These figures indicate an 85.6% increase in class cuts for the students in the sample between the two time periods. This difference was found to be significant at the 2% level.

Mr. Hollins informed the Contractor that a part of this increase may well be attributable to improved methods of absentee data collection during the second quarter. In other words, some absences during the first quarter may not have been recorded. If this is the case, the real difference is overstated. It is impossible, however, to indicate to what degree this is true.

Additionally, as mentioned above, Mr. Caldwell, the Director of the C.O.P. and Associate Principal at Garfield "B" informed the Contractor that experience indicates that the rate of absenteeism tends to increase during the second quarter of the semester. There are obviously many reasons for this, one of which might be the student's dissatisfaction with his (her) first quarter performance and consequent discouragement.

In summary, the first year objective of reducing absentee rates of the students enrolled in the C.O.P. by 20% has not been achieved.

Item 10: To change the attitude of the 250 students or one-fourth of the student body toward the school.

Determining attitudinal change in a large sample of people is a complex task under any circumstances. Because of specific contract limitations, the Contractor was unable to interview any of the students enrolled in the C.O.P. Consequently, the only bases we have for assessing any changes in the attitudes of the students enrolled in the C.O.P. are the analysis of absentee data (see Item 8, page 29) and the analysis of the changes in g.p.a. performance of those students in the C.O.P. who entered the program with a g.p.a. of 2.0 or less (see Item 11, following on page 33).

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[3] See Appendix D, Section C, for a recapitulation of the statistical data.

The increase in overall g.p.a. for that specific subset of all students in the C.O.P. was determined to be 15.7%. This is perhaps a partial indicator of a positive attitudinal change on the part of those students who entered the program with a g.p.a. of 2.0 or less. However, the 85.6% increase in absenteeism for the random sample of all students in the C.O.P. tends to indicate a negative attitudinal change. It must be emphasized that we are dealing with two mutually exclusive samples of students. In addition, it is perhaps dangerous to infer any attitudinal change whatsoever from these data. The Contractor has made no attempt at correlation analysis of the factors under consideration.

In summary, the Contractor has not been able to make any realistic determination of attitudinal change among the 297 students enrolled in the C.O.P. for the Fall 1971 semester.

Item 11: Specific to these Occupational Program students with a g.p.a. less than 2.0.

Assumptions:

1. Occupational Development Program enrollment g.p.a. will be less than 2.0,
2. Student must remain in the program for a minimum of one (1) semester,

   11.a. A 50% increase in semester g.p.a. per academic area will occur as compared to the Occupational Development Program enrollment base line cumulative g.p.a. per academic area,

   11.b. Provided the student continued enrollment in the Occupational Development Program, the 50% increase in academic area g.p.a., as compared to the enrollment base line g.p.a., will be maintained throughout the student's enrollment in the Occupational Development Program.

The determination of significant changes in g.p.a. status for those students with a 2.0 or lower g.p.a. presented some difficulty. First, completed class lists for all classes in the C.O.P. were not made available to the Contractor. Consequently, the program cards for all the students at Garfield had to be checked to determine what students were enrolled in C.O.P. classes. A list of students identified as being enrolled in the C.O.P. for the Fall 1971 semester was derived in this manner. The list totalled 215 students.

The Contractor then checked all academic records to determine the subset of students who had a g.p.a. of 2.0 or lower as of the end of Spring semester, 1971. This subset included 78 students. A random sample of 30 was taken from these 78. Because of one student in the sample whose academic record was not compiled for Fall 1971, the final sample totaled 29.

The academic records of these 29 students were pulled from the files, and the Spring 1971 g.p.a.'s recorded. The total g.p.a. for each of the four primary academic areas - math, science, language arts, and social studies - was determined for the same time period, to establish a base line for each area.

Next, the Fall 1971 1st quarter report cards for these 29 students were identified and the g.p.a. in the four academic areas was taken. However, because most of the students in the C.O.P. are either juniors or seniors (grades 11 or 12) many are not presently enrolled in courses falling under the four academic areas. For example, for the Fall 1971 1st quarter only 11 students in the sample received grades above an "E" in social studies related courses, 5 students received grades higher than "E" in science courses and 12 students received grades higher than "E" in math courses. The only area wherein a significant number of students in the sample received grades higher than "E" was language arts. The subset in this case included 23 students receiving grades.

Of the twenty-nine students in the original sample, the enrollment breakdown for the four academic areas for Fall semester 1971 is as follows:

Six students in classes in all four subject areas.

Eleven students in classes in only three of the subject areas.

Five students in classes in only two of the subject areas.

Five students in classes in only one of the subject areas.

Two students in no classes in the four subject areas.

As a result of this problem, any significant difference in sample g.p.a. changes in the four subject areas would be seriously affected by differences in sample sizes. Variance analysis was performed on the student sample in language arts courses. The g.p.a. means before and after 1st quarter Fall 1971 were 1.40 and 1.35 respectively. (See Appendix D, Section B for the appropriate data.) This represents a decrease in mean g.p.a. of 0.05, or 3.6%. This difference was found to be insignificant either at the 5 percent or the 1 percent levels of significance.

Because of the large discrepancies in sample sizes for the remaining three academic areas, the Contractor has been unable to determine the significance of changes in g.p.a. per academic area for the three academic areas: social studies, math and science. As noted above, the change in g.p.a. in the language arts academic area was found to be insignificant.

If, however, we consider the total g.p.a. of each student in the sample both before and after the Fall 1971 first quarter, the results are more significant.

We take as the null hypothesis that there will be no change in mean scores for g.p.a. before and after first quarter Fall 1971.

The average g.p.a. (mean) for the 29 in the sample as of the end of Spring semester 1971 is 1.15. The standard deviation of this distribution is 0.56. The mean for the sample as of the end of the first quarter Fall 1971 is 1.33. The standard deviation of that distribution is 0.65, or slightly more widely disbursed. The variance between the two means is 0.18. This is a 15.7% increase in mean g.p.a. for the sample. Using a t-distribution test for significance (see Appendix D., Section A for the appropriate data) we obtain a value for t of 1.108. For the sample of 29, this t-value affords a level of significance of slightly better than 3%. In other words, there are fewer than 3 chances in 100 that this difference occured by chance. Therefore, we can say that with 97% certainty, the difference is significant, and that the null hypothesis is incorrect.

The problem arises when we attempt to determine what caused the difference. It is impossible to declare with certainty that this 15.7% increase in the mean g.p.a. scores for the sample occured as a result of the students being enrolled in the C.O.P. Too many other intervening variables might have had some effect upon these students. These may include: improvements in the total educational environment at Garfield, increased attention for individual students in courses outside the C.O.P., and/or increased maturity and experience. In addition, there are several courses in the C.O.P. which have a minimum requirement of a C grade for continuation in the program. This could also have had the effect of increasing the g. p. a. mean for the sample.

At the same time, however, we cannot completely discount the possibility that this positive variance was at least partially caused by the students' experience in the C.O.P. It will be considerably easier to determine, with increased levels of certainty, a direct causal relationship between the C.O.P. and increases in mean g.p.a. scores for students enrolled in the C.O.P. when additional historical data are available. After another year's experience with the program, for example, a more complete statistical analysis, supported by student and teacher interviews, would probably afford a better understanding of the nature of any causal relationship which might exist.

Finally, specific to Item 11.b. in the list of first year objectives, the Contractor was able to identify only 23 students who were enrolled in the C.O.P. for both the Spring semester 1971 and the first quarter of the Fall semester 1971. This figure is approximately 9% of the total enrollment in the C.O.P. for Spring semester, 1971. Given that one of the objectives of the C.O.P. is to expose students to prevocational training over a period of at least 2 semesters, this is a very low carry-over enrollment figure.

In summation, then, the 50% increase in academic g.p.a. hoped for from the students in the C.O.P. with g.p.a.'s at the time of enrollment of less than 2.0 has not occurred. The increase was determined to be only 15.7%. And, it is impossible to attribute this increase with any real certainty to the students' experiences in the C.O.P.

Item 12: To develop linkage between the middle school program and the Garfield High School Exemplary Program.

To date, no significant linkage between the Exemplary Program and the middle school programs for career awareness has been developed.

Several attempts have been made to develop this linkage at Meany Middle School. However, the Contractor was informed that considerable resistance to the establishment of said linkage has been manifest at the administrative level of Meany Middle School. Also, because of intensive middle school planning activity there has been additional delay in establishing this linkage.

Steps are presently being taken to rectify this impasse. Mr. Caldwell has appointed Mrs. Helene Schuller, the Assistant Curriculum Coordinator within the C.O.P., as a special liaison with the middle schools. Mr. Caldwell himself has appointed a task force committee including representatives from the Middle School program, members of the C.O.P. staff and counselors to expedite the development of short range and long range goals concerning the Middle School program. The basic objectives will be to establish a working relationship between the Exemplary Program at Garfield and the Middle School programs as soon as it is feasible, and eventually to have a coordinated program of career awareness education from kindergarten through the 12th grade.

In summary, the first year objective of establishing a linkage with the middle school programs has not been met.

Item 13: To develop at least two work opportunity instructional areas.

Work development instruction areas have been developed and are operating for auto service station, auto-tech, construction-tech, FEAST, and several other course areas within the C.O.P. As mentioned in Item 4 above, the welding program facilities are presently inadequate, and steps are being taken to remedy this situation.

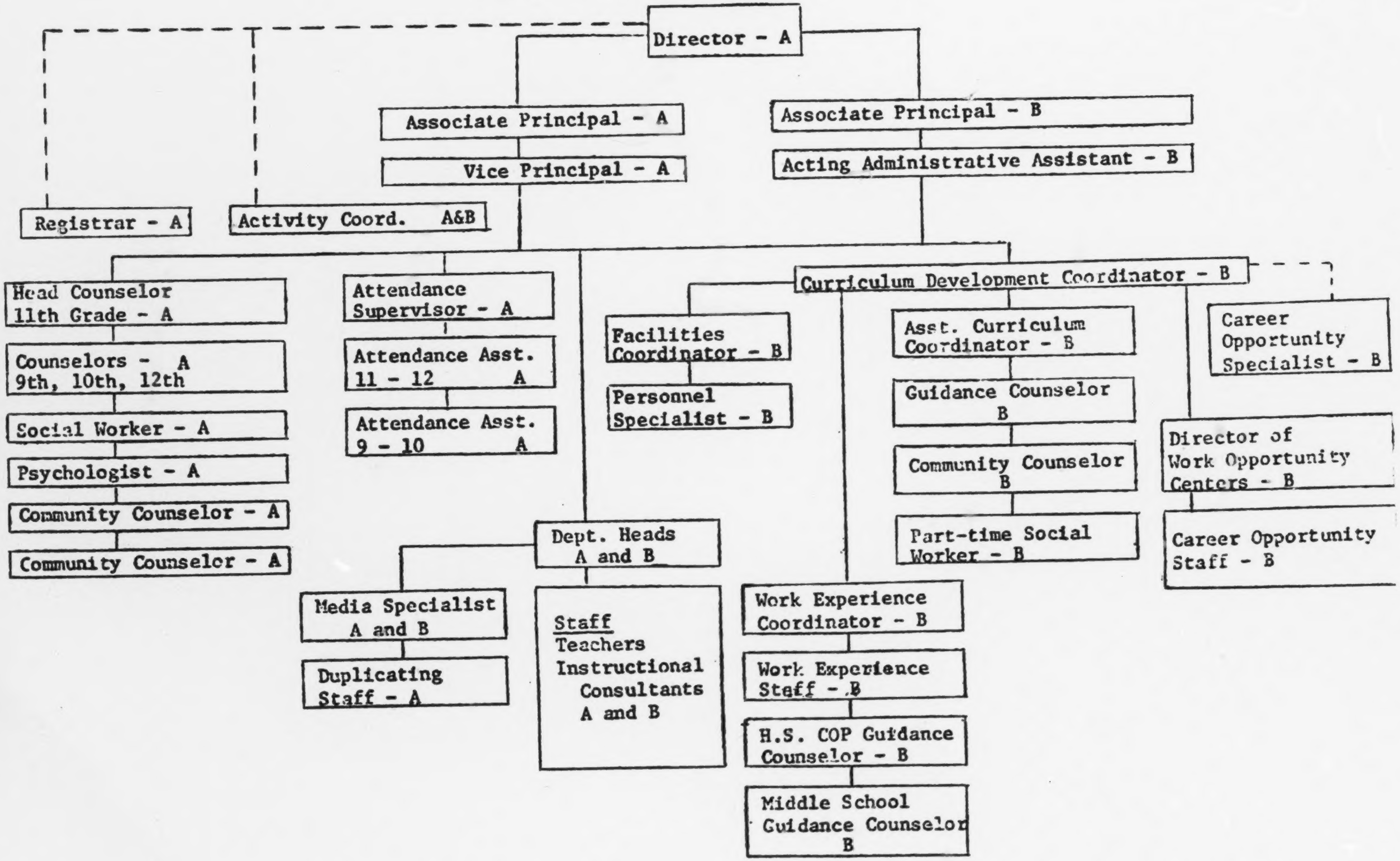
In summary, the first year objective of establishing at least two work opportunity areas have been met and well surpassed.

APPENDIX A

ORGANIZATION CHARTS FOR C.O.P.

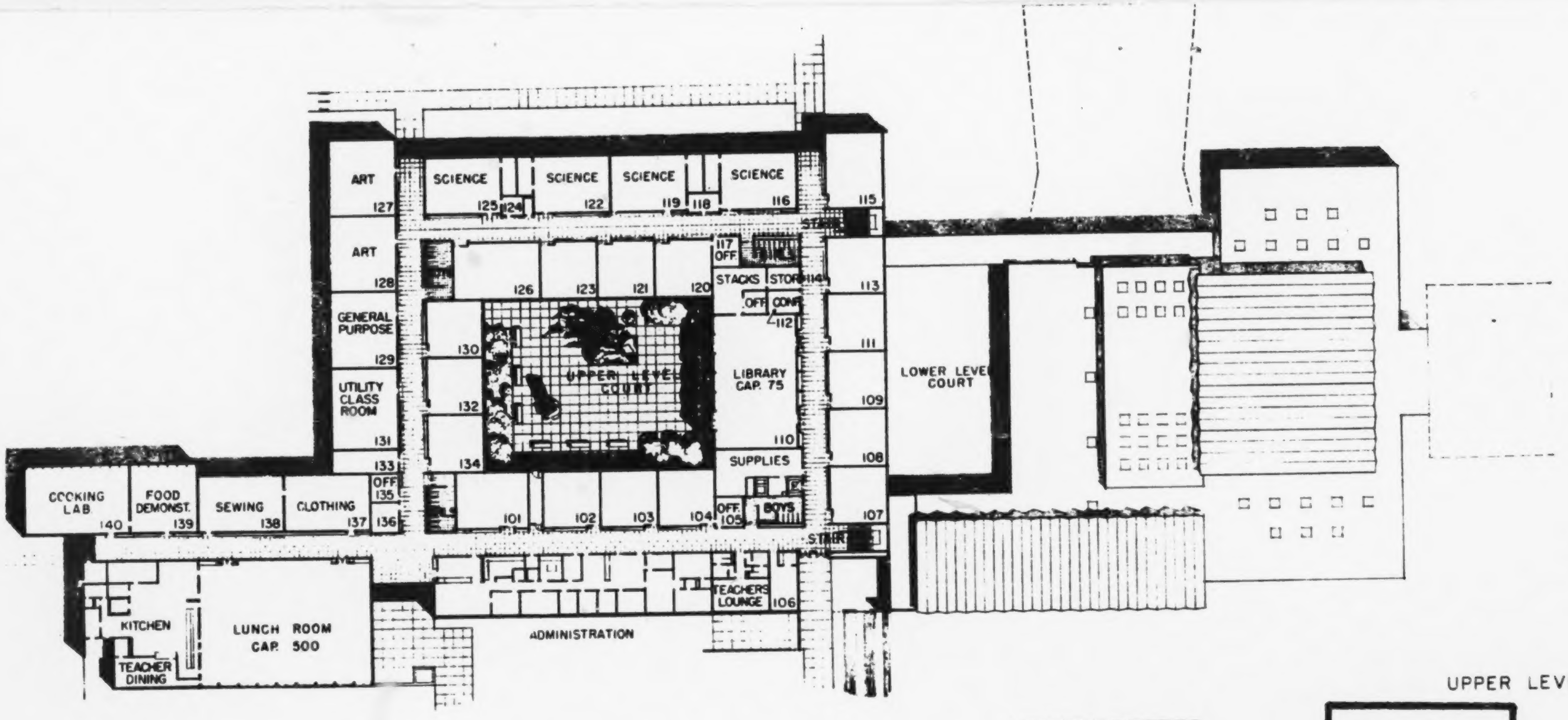
Chart H ORGANIZATIONAL CHART FOR GARFIELD HIGH SCHOOL 1971-1972

Campuses A and B
Location of Personnel Denoted by A or B


Director - A
Associate Principal - A
Vice Principal - A
Associate Principal - B
Acting Administrative Assistant - B
Registrar - A
Activity Coord. A&B
Head Counselor 11th Grade - A
Counselors - A 9th, 10th, 12th
Social Worker - A
Psychologist - A
Community Counselor - A
Community Counselor - A
Attendance Supervisor - A
Attendance Asst. 11 - 12 A
Attendance Asst. 9 - 10 A
Dept. Heads A and B
Media Specialist A and B
Duplicating Staff - A
Staff Teachers Instructional Consultants A and B
Curriculum Development Coordinator - B
Facilities Coordinator - B
Personnel Specialist - B
Asst. Curriculum Coordinator - B
Guidance Counselor B
Community Counselor B
Part-time Social Worker - B
Work Experience Coordinator - B
Work Experience Staff - B
H.S. COP Guidance Counselor - B
Middle School Guidance Counselor B
Career Opportunity Specialist - B
Director of Work Opportunity Centers - B
Career Opportunity Staff - B

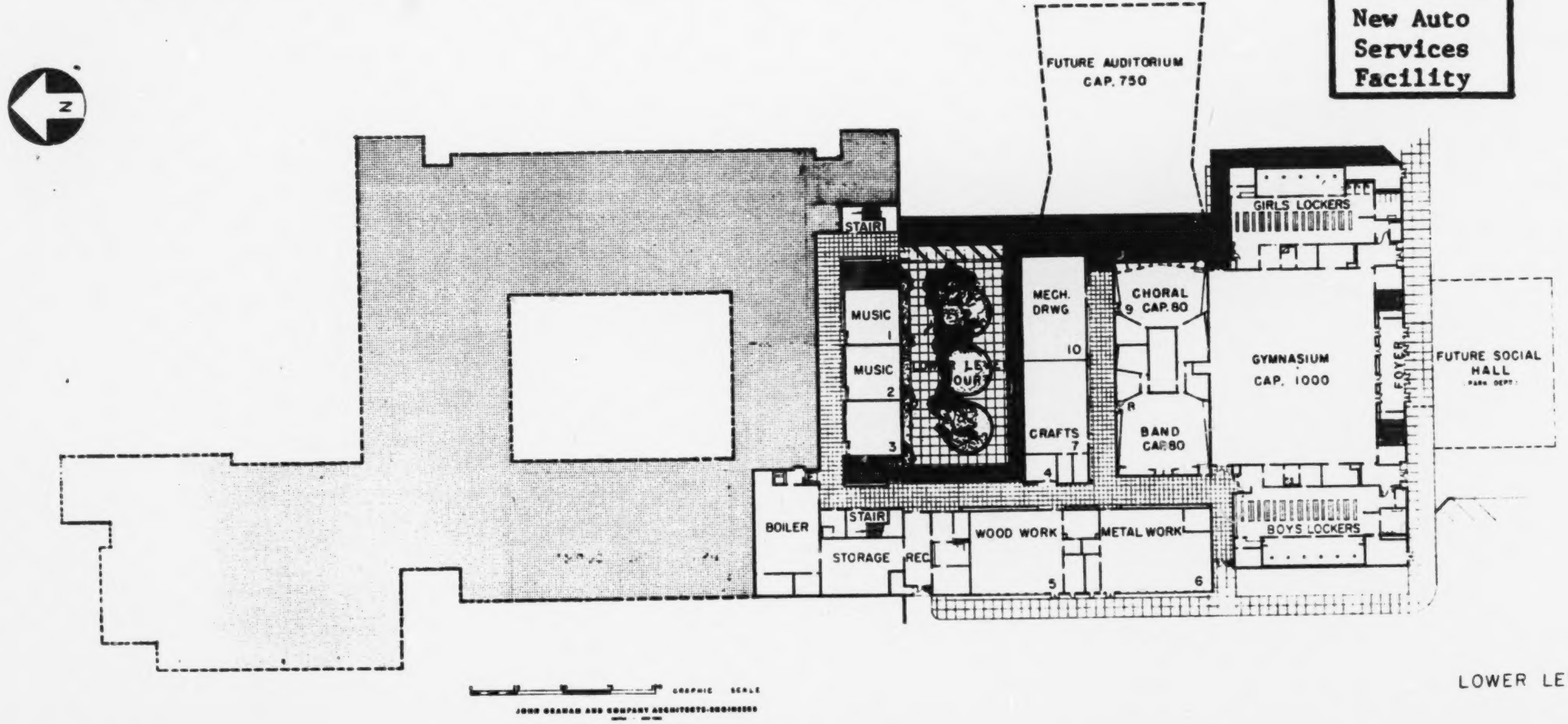
APPENDIX B

FLOOR PLAN OF GARFIELD "B" CAMPUS


ART 127
ART 128
GENERAL PURPOSE 129
UTILITY CLASS ROOM 131
133
OFF 135
136
SCIENCE 125
124
SCIENCE 122
SCIENCE 119
118
SCIENCE 116
115
STAIR
117 OFF
STACKS
STOR 114
OFF
CONF 112
113
111
109
108
107
126
123
121
120
130
132
134
UPPER LEVEL COURT
LIBRARY CAP. 75
110
SUPPLIES
BOYS
OFF 105
101
102
103
104
STAIR
COOKING LAB 140
FOOD DEMONST. 139
SEWING 138
CLOTHING 137
KITCHEN
TEACHER DINING
LUNCH ROOM CAP. 500
ADMINISTRATION
TEACHERS LOUNGE 106
LOWER LEVEL COURT

UPPER LEVEL PLAN

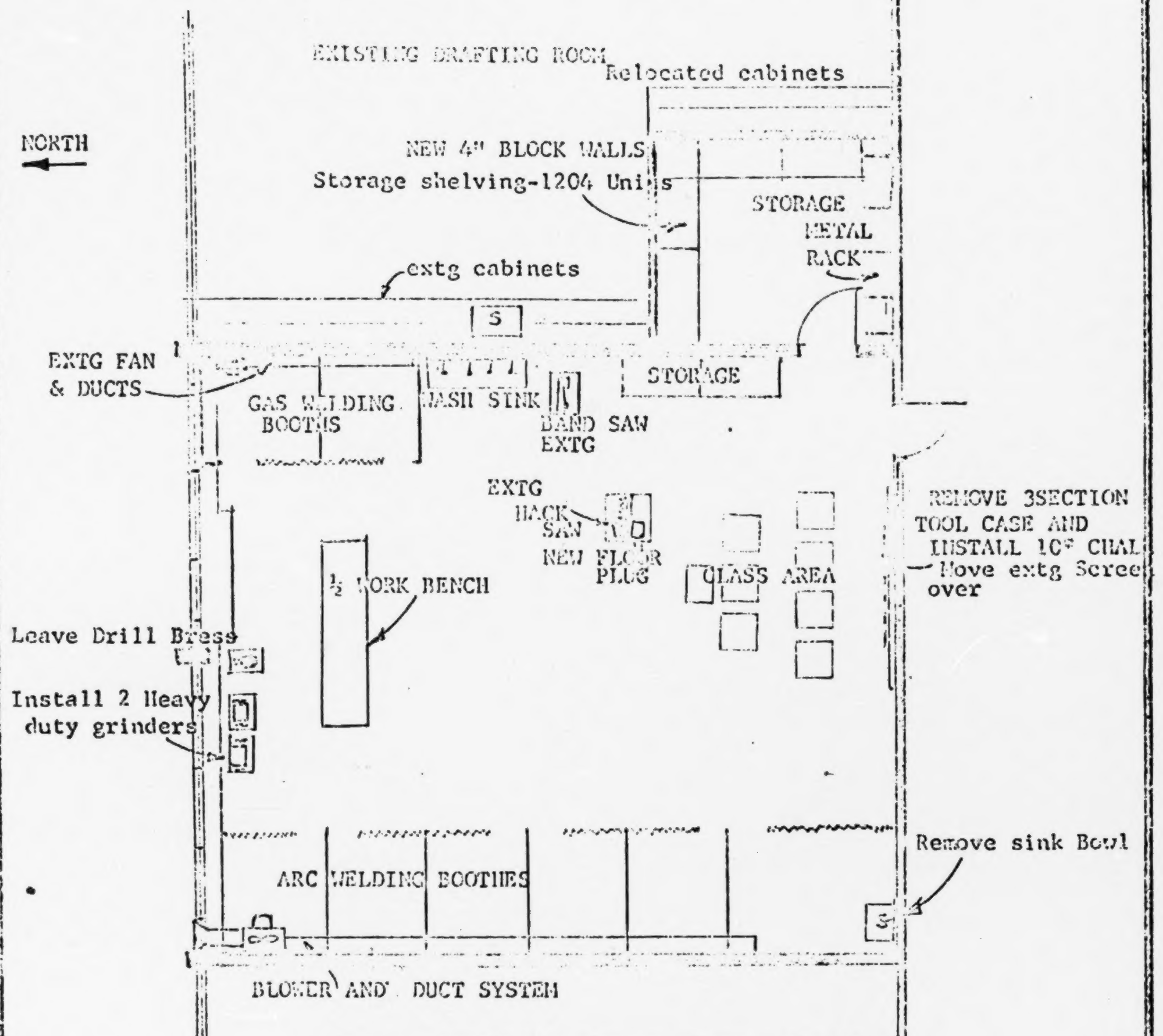
New Auto
Services
Facility


N
FUTURE AUDITORIUM CAP. 750
STAIR
MUSIC 1
MUSIC 2
3
LOWER LEVEL COURT
MECH. DRWG 10
CRAFTS 7
4
CHORAL 9 CAP. 80
R
BAND CAP. 80
GIRLS LOCKERS
GYMNASIUM CAP. 1000
FOYER
FUTURE SOCIAL HALL
PARK DEPT.
BOYS LOCKERS
BOILER
STAIR
STORAGE
REC
WOOD WORK 5
METAL WORK 6
GRAPHIC SCALE
JOHN GRAHAM AND COMPANY ARCHITECTS-ENGINEERS

LOWER LEVEL PLAN

APPENDIX C

PRELIMINARY PLAN FOR FACILITIES AT GARFIELD "B"


EXISTING DRAFTING ROOM
Relocated cabinets
NORTH
NEW 4" BLOCK WALLS
Storage shelving-1204 Units
STORAGE
METAL RACK
extg cabinets
S
EXTG FAN & DUCTS
GAS WELDING BOOTHS
WASH SINK
BAND SAW EXTG
STORAGE
EXTG HACK SAW
NEW FLOOR PLUG
REMOVE 3SECTION TOOL CASE AND INSTALL 10' CHAL
Move extg Scree over
CLASS AREA
½ WORK BENCH
Leave Drill Press
Install 2 Heavy duty grinders
ARC WELDING BOOTHES
Remove sink Bowl
S
BLOWER AND DUCT SYSTEM

PARTIAL FLOOR PLAN GROUND FLOOR SOUTH WING
SHOWING NEW WELDING CLASS

scale 1/8" = 1'-0"

WASHINGTON J.H. BUILDING
GARFIELD (B) HIGHSCHOOL

NEW WELDING SCHOOL

DATE 7.[illegible]	SEATTLE SCHOOL DISTRICT No. 1 FACILITIES DEPARTMENT WALTER E. LARSEN, GEN. MGR. 810 DEXTER AVENUE NORTH SEATTLE, WASHINGTON	SHEET 1
DRAWN BY [illegible]		
CHECKED BY		

PRELIMINARY

APPENDIX D

STATISTICAL RECAPITULATION

APPENDIX D

GARFIELD C.O.P.
STATISTICAL ANALYSIS

A. **Comparison of overall g.p.a. scores for a random sample of 29 C.O.P. enrolled students with g.p.a. _ 2.0: Time period: Beginning and end of Fall, 1971 first quarter.**

Sample size: $K_1 = K_2 = 29$

Means: $\overline{X}_1 = 1.15$

$\overline{X}_2 = 1.33$

Variance $= 0.18$

Total Raw Scores: $\Sigma X_1 = 33.30$

$\Sigma X_2 = 38.71$

Sum of Raw Scores Squared: $\Sigma X_1{}^2 = 47.36$

$\Sigma X_2{}^2 = 63.97$

Square of Sums of Raw Scores: $\Sigma(X_1)^2 = 1108.89$

$\Sigma(X_2)^2 = 1498.46$

Standard Deviation:

$$\sigma_x = \sqrt{\frac{\Sigma x^2 - \frac{(\Sigma x)^2}{K}}{K}}$$

$\sigma x_1 = .56$

$\sigma x_2 = .65$

t-value:
(variance analysis)

$$t = \frac{\bar{X}_2 - \bar{X}_1}{\sqrt{\dfrac{\Sigma X_2{}^2 - \dfrac{(\Sigma X_2)^2}{K_2}}{K_2\ (K_2 - 1)} + \dfrac{\Sigma X_1{}^2 - \dfrac{(\Sigma X_1)^2}{K_1}}{K_1\ (K_1 - 1)}}}$$

$t = 1.108$ good at the 3% level of significance.

B. Comparison of g.p.a. scores for language arts subject area: 29 randomly selected students with g.p.a. ± 2.0: Time period as above.

Sample size: $N_1 = 29$
$N_2 = 23$*

Means: $\bar{Y}_1 = 1.40$
$\bar{Y}_2 = 1.35$

Total Raw Scores: $\Sigma Y_1 = 42.04$
$\Sigma Y_2 = 31.00$

Sum of Raw Scores Squared: $\Sigma Y_1{}^2 = 64.57$
$\Sigma Y_2{}^2 = 57.00$

Square of Sums of Raw Scores:
$(\Sigma Y_1)^2 = 1767.36$
$(\Sigma Y_2)^2 = 961.00$

Standard Deviation:

$$\sigma_{y_1} = \sqrt{\frac{\Sigma Y^2 - \dfrac{(\Sigma Y)^2}{N}}{N}}$$

$\sigma_{y_1} = .35$
$\sigma_{y_2} = .81$

* Sample size for the end of 1st quarter Fall 1971 reduced to 23. Six students of the original 29 did not recieve grades in language arts related courses during this quarter.

Variance Analysis: t-value

$$t = \frac{\overline{Y}_1 - \overline{Y}_2}{\sqrt{\dfrac{\sum Y_1^2 - \dfrac{(\sum Y_1)^2}{N_1}}{N_1(N_1 - 1)} + \dfrac{Y_2^2 - \dfrac{(\sum Y_2)^2}{N_2}}{N_2(N_2 - 1)}}}$$

$t = 0.269$ good only at 8% level of significance.

C. Comparison of attendance data for first quarter Fall 1971 and the first one-third of the second quarter Fall 1971. (All figures are in terms of class cuts.)

Means: $\overline{X}_1 = 20.57$
$\overline{X}_2 = 38.19$

Total Raw Scores: $\sum X_1 = 432$
$\sum X_2 = 802$

Sum of Raw Scores Squared: $\sum X_1^2 = 14{,}084$
$\sum X_2^2 = 42{,}288$

Square of Sums of Raw Scores: $(\sum X_1)^2 = 186{,}624$
$(\sum X_2)^2 = 643{,}204$

Standard Deviation:

$$\sigma_X = \sqrt{\frac{\sum X^2 - \dfrac{(\sum X)^2}{K}}{K}}$$

$\sigma_{X_1} = 15.72$
$\sigma_{X_2} = 23{,}56$

Variance Analysis: t-value

$$t = \frac{\bar{X}_2 - \bar{X}_1}{\sqrt{\dfrac{\Sigma X_2^{\,2} - \dfrac{(\Sigma X_2)^2}{K_2}}{K_2\ (K_2 - 1)} + \dfrac{\Sigma X_1^{\,2} - \dfrac{(\Sigma X_1)^2}{K_1}}{K_1\ (K_1 - 1)}}}$$

t = 2.779 good at 2% level of significance

APPENDIX E

FINAL REPORT:
L.A.P. DEVELOPMENT WORKSHOP

APPENDIX E

A Readiness for Fall Workshop
Project Garfield
August 23 - 27, 1971

Task No.

1. Development of student-centered learning activity packages (LAPS)
2. Study of classroom management ssystem for Individualized Learning.
3. Development of teamwork relationships and organization.

Workshop Schedule

Monday, August 23

8 - 9 Project Garfield Orientation/Organization
9 - 1 Work on Tasks 1 and 2

Tuesday, August 24

8 - 12 Work on Tasks 1 and 2
12 - 1 Development of Teamwork Relationships

Wednesday, August 25

8 - 12 Work on Tasks 1 and 2
12 - 1 Classroom Management for Alienated Students (panel discussion)

Thursday, August 26

8 - 12 Work on Tasks 1 and 2
12 - 1 Individual Team Development

1. Lanuage Arts, Communication Team - Room 103
2. Math-Science Team - Room 104
3. Personal Development Team - Room 105
4. Career Opportunity Team - Room 106
5. Counseling Team - Activity Center
6. Attendance Team - Attendance Office
7. Media Development Team - Reproduction Room

Friday, August 27

8 - 12 Complete Tasks 1 and 2
12 - 1 Individual Team Development; Wrap up Activities

Same Room Assignments for Teams

Received
SEP 1 1971
Q. Lee

FINAL REPORT

ON

LEARNING ACTIVITY PACKAGE DEVELOPMENT WORKSHOP

GARFIELD

23 AUGUST 1971

THROUGH

27 AUGUST 1971

The Learning Activity Package development workshop was conducted at Garfield A from August 23 through 27 in conformance with a contract between the Seattle schools and Harold Nichols and William Schill. Rose McCartin assisted in the conduct of the workshop under a separate contract.

PARTICIPANTS

The initial plan was to conduct the workshop for Career Opportunity Program teachers only. The group was later expanded to include 25 teachers and when the workshop started it was expanded further to 33 teachers. During the course of the workshop 42 different Garfield teachers and administrators sat in for parts of the formal presentations. The increase in the number of participants made the workshop more cost effective, but detracted somewhat from the working atmosphere. In addition to the part-time participants who sat in at their convenience, the contingencies of getting ready for school to open required that some of the full time participants leave the workshop from time to time. For example, two or more of the full time participants had to join the principal at the district office to finalize contracts.

STAFF

Schill, Nichols, and McCartin made all the formal presentations and worked with the participants in individual and small group work sessions. Three young persons working for Professor Schill on the Employment Supplement Program joined the staff as support personnel. They provided typing and copying service and ran the audio visual devices.

CONDUCT OF THE WORKSHOP

Throughout the workshop an informal seminar atmosphere was maintained. The participants were encouraged to question and discuss each presentation and were invited to add or delete from the workshop objectives.

OBJECTIVES

The workshop proposal and the participant resource book contained the objectives of the workshop. None of the participants suggested any change in the objectives, as stated below.

Upon completion of this In-Service Teacher Program, each participant will be able to:

1. Describe the characteristics of an Individualized Learning Program.
2. Define the role of the teacher and the role of the student in an Individualized Learning Program.
3. Develop a classroom management system that will control individual student progress and learning in his course of instruction.
4. Describe the four development steps required to produce a Learning Activities Package.
5. Analyze a course of instruction and list the minimum essential learning activities that students must perform to become qualified for employment (at the entry level).
6. Identify and document the minimum essential learning resources required to support the learning activities for a given course of instruction.
7. Design and locate the necessary Work/Learning Stations required to support the learning activities for his course of instruction.
8. Develop a Learning Resource Center that will support the Work/Learning Stations in his course of instruction.
9. Outline, group and sequence the Learning Activities in his course of instruction into Learning Activity units.
10. Write at least one Learning Activity Package for one unit.

EVALUATION

The evaluation of the workshop is in terms of the outcome objectives specified in the proposal and repeated above.

Objective number five (5) had been satisfied prior to the workshop in that the teachers had already developed objectives for their classes. This fact was acknowledged in the proposal and the objectives became the basis for Learning Activity Packages.

Objectives 1, 2, and 4, which require that the teachers know the characteristics of Learning Activity Packages, were measured by a multiple choice self test. These objectives were considered to have been satisfied in that 78% of the participants measured got perfect scores on the test, 6% of the participants got 90% of the questions correct and 16% got 80% correct. The overall average score was 96%.

Objectives 6, 7, 8, and 9 were satisfied in that each teacher constructed a matrix of learning resources and content for their course of instruction. One teacher constructed matrix is attached to this report as an example. It should be noted here that in the process of listing learning resources the new teachers were able to get acquainted with their classroom in a fashion that would not have been possible without the workshop to direct them.

Objective 3 is a postponed objective in that the teachers will have to complete their learning activity packages before they can develop a classroom management system. However, the resource book distributed to the participants contains examples of classroom management systems and the workshop discussions were sufficiently detailed that the teachers could understand the process and the need for a simple, but complete classroom management system.

Objective 10 was the final outcome objective of the workshop. Those teachers who were in attendance all five days did complete at least one learning activity package. Examples of teacher constructed learning activity packages are attached.

CONCLUSIONS AND RECOMMENDATIONS

Teachers readily accept the concept of learning activity packages and are able to develop packages without undue consumption of time.

Learning activity package development gives meaning to Career Opportunity Program objectives developed last year.

Teachers should now be encouraged to continue with the development of learning activity packages. This may require some released time and definitely should include continued consultant support to the teachers.

APPENDIX

Quarterly Report, Central Area Schools Occupational Development Program, November, 1971. The Appendix to this report contains:

Excerpts from Model Cities Quarterly Reports

Independent Study

Work Experience Unit Materials

Seattle Public School District Plan for Career Education, K-12, Quality Education

Individualized Learning - A Resource Book by Harold E. Nichols, William J. Schill and Rosemarie McCartin. (Used in "Readiness for Fall, COP Workshop, 1971.)

Advisory Committees for Career Opportunity Program, 1970-71.

Appendum E and F to Exemplary Project Proposal. Appendem E: Provision for Special Training to Graduating Seniors and Potential Dropouts. Appendum F: Third Party Evaluation Contract.

Prerequisites and Behavioral Objectives for Courses Taught at Garfield High School, by Garfield Staff. Howard White, Principal, et all. (Excerpts from Career Opportunity Program courses of study from above, and from the Supplemental Information, Appendix 8: Career Opportunity Program, 1971.)

QUARTERLY REPORT

Project No.1-361-0168
Contract No. OEG-0-71-1171 (361)

Central Area Schools
Occupational Development Program

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

Dr. Richard Hunter
Seattle Public Schools
Central Area School Administration
1729 17th Avenue
Seattle, Washington 98122

November 1971

QUARTERLY REPORT

Project No. 1-361-0168
Contract No. OEG-0-71-1171 (361)

CENTRAL AREA SCHOOLS OCCUPATIONAL DEVELOPMENT PROGRAM

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

The project reported herein was performed pursuant to a grant with the Bureau of Adult, Vocational, and Technical Education, Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such project under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Dr. Richard Hunter
Assistant Superintendent, Seattle Public Schools
Central Area School Administration
1729 17th Avenue
Seattle, Washington 98122

November 1971

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1.0 Introduction

Garfield High School is in the Central Area, located in the inner core of the more than 1.5 million people included in the Megalopolis of Seattle. Garfield has a present population in the four grade levels of a little over one thousand students and 95 staff members located in a two-building campus. As in most urban areas whose schools are plagued with three broad areas of problems, that is, pupil, staff, and school-community relations problems; Garfield has experienced over the past few years the following proliferation of disturbing symptoms:

- a decline in enrollment numbers over past five years of over 500 students
- an increase of more than 100% in the number of dropouts.
- a decline in average pupil achievement scores at all grade levels, based on national achievement tests
- a dramatic increase in the number of offenses involving pupils on school property
- over 50% of staff requested to be transferred "out", with declining morale
- approximately one-quarter of students requested to be transferred "out", despite the addition of a ninth grade as a result of the adoption of the 4-4-4 plan in September of 1970.

An exodus of "white" students and some Blacks has left a racial mix at Garfield. The November 1, 1970 school figures indicate:

Caucasian	15.4		
Spanish surname	0.6	Total Caucasian:	16.0%
Black	79.1	Total Black:	79.1%
Nonwhite, Nonblack:			
Japanese	0.8		
Chinese	1.9		
Filipino	0.9		
American Indian	0.8	Total Nonwhite, Nonblack:	4.9%
Other	0.5		

Despite these facts, there is a core of teachers and staff, aided by dedicated community persons and a vigorously active community school council who have made a significant effort to effect a change. The initiation of the Career Opportunity Program (Occupational Skills), intensified counseling, unique scheduling, and other special programs have made possible changes in the educational climate for students at Garifled. Team-teaching, independent study, individualized program learning, continuous progress as well as traditional methods are employed as methodology. The re-emphasis this past year on pupil centered learning resulted in a revision of the entire curriculum and the formation of behavioral objectives for courses which measure student progress and direct learning according to performance level criteria. We can only hope that these will result in a significantly changed educational picture for the student.

1.1 Unique Features of the Central Area Schools Occupational Development Program

1.) Career education a regular part of comprehensive school curriculum

2.) Work opportunity centers - on campus and in community

3.) Provision for special short-term training of students just before graduation

4.) Student placement coordinated by work experience staff

5.) Middle school integration of career education curriculum - C.O.P. initiated.

Period Covered by Exemplary Project

1.2 The Career Opportunity Program, Central Area Schools Occupational Development Program, first year is from December 15, 1970, through December 14, 1971. The Federal Funding Grant award was made on March 5, 1971, through the Office of the Director of Health, Education and Welfare as an Exemplary Project in Vocational Education conducted under Part D of Public Law 90-576. The effective date of the Exemplary Grant award was December 15, 1970.

The period covered by this Quarterly Report is December 15, 1970, through November 10, 1971. After the Interim Report of December, 1971, the Quarterly Reports will follow, it is intended, in a regular fashion: that is, March 15, 1972; June 15, 1972; September 15, 1972; and the year-end Interim Report of December 14, 1972. Two factors contributed to the date of this report: 1.) several administrative changes (see Staff Organizational Changes, Table VI), and 2.) receipt of guidelines for developing the quarterly report late in August.

This report was prepared by Helene E. Schuller, now Assistant Curriculum Coordinator, and the Career Opportunity Staff, under the direction of H. Lynn Caldwell, Principal of Garfield B and now Project Director.

Dated this 19th day of November, 1971

by H. Lynn Caldwell Director

H. Lynn Caldwell, Director of Project

1.3 First Year Planning & Development

The Program was developed along these lines:

1. From input regarding career courses, the field was narrowed to about 16 to try to plan and develop and possibly implement by Fall, 1970, so that a proper and comprehensive assortment of courses would be offered based on population needs and job opportunities.

2. Organized task force in Career Opportunity Program with beginning of advisory committees of each career (potential course).

3. Developed within the advisory committee: curriculum, outcomes, extent of involvement with regard to equipment, skills training, etc.--pre-planning.

4. Total task force review of committee work, revisions.

5. Advisory committee work - daily and weekly planning and research evolved to come up with a working plan which included curriculum, learning outcomes, equipment recommendations.

6. Acquisition of equipment, remodeling of facilities, development of course objectives for each career course.

7. Feasibility study to determine readiness for fall, 1970-71. Recommendations that certain career courses would be ready with facilities; personnel.

8. Continuing work with advisory committees to focus on behavioral objectives and skill building; review of facilities and recommendations.

9. Feasibility study to determine readiness for second semester courses. Recommendations on vocational education submission for acceptance as vocational subjects; certification of instructors.

10. Continuing work with advisory committees and instructors in final writing of course behavioral objectives - focus on skill building in career choice.

Second Year

11. Revision of remodeling schedule and acquisition of equipment and supplies.

12. Additions of Ninth Grade Career Lab Workshop, Radio/TV, Marine Engines, Welding; deletions of Barbering and Sheet Metal.

Change of Construction Technology to Carpentry (includes skills of construction carpentry trade). Modification of FEAST program; continuing revisions of behavioral objectives, and scrutiny of career courses for relevancy to manpower surveys.

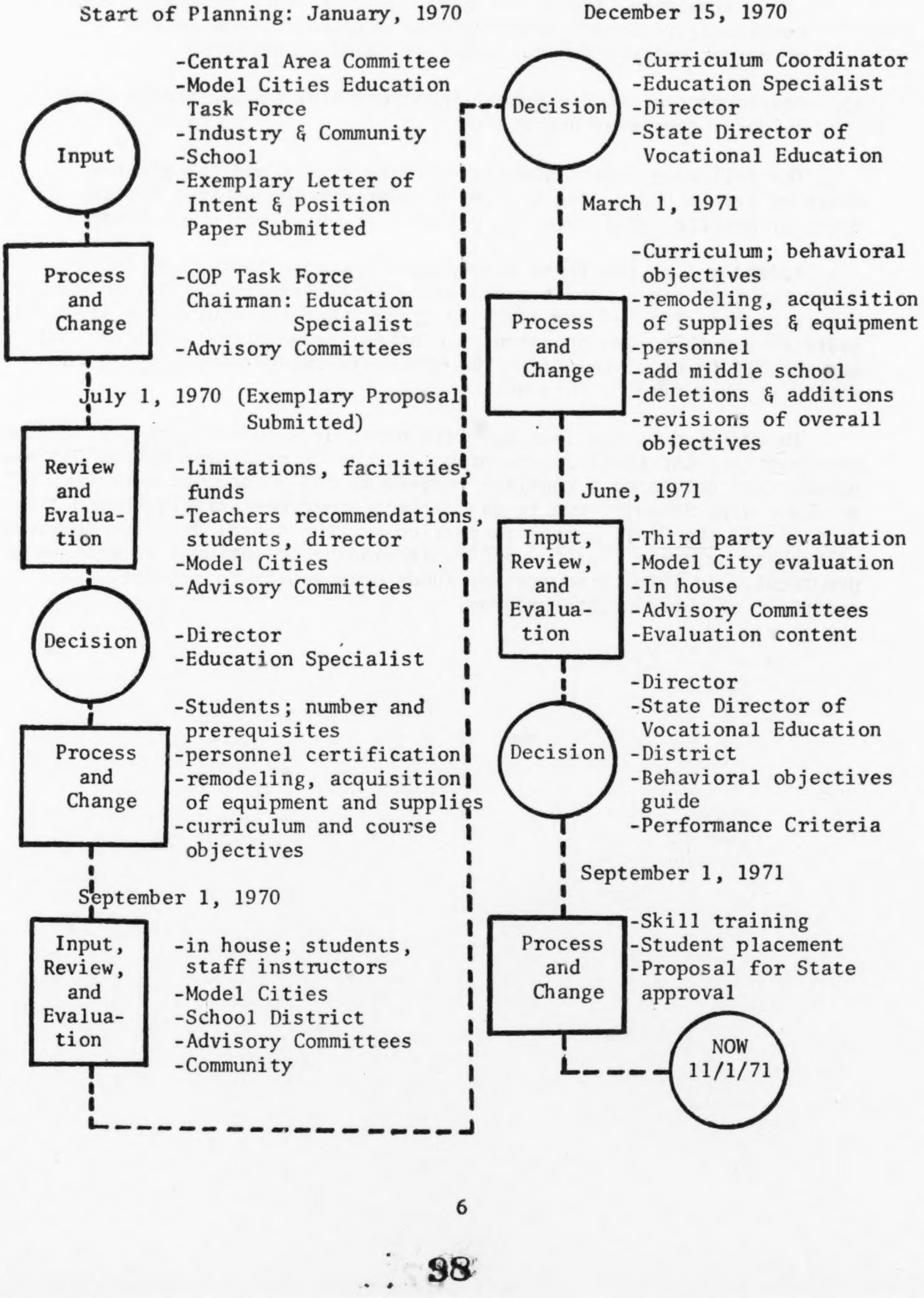
13. Development of Middle School involvement by C.O.P. middle school guidance counselor and staff.

The following charts elaborate on the events and the process: Chart of Events C.O.P. and Systems Development Corporation System Model by Seattle Public Schools Planning and Evaluation Department.

Addendum A to the first year proposal stated that an advisory committee task force was formed shortly after January, 1970. Following the recommendation "of the advisory groups that the short term goals be modified and that work opportunity centers become operational as soon as possible in order to affect the necessary change needed in the community at this time." This was done.

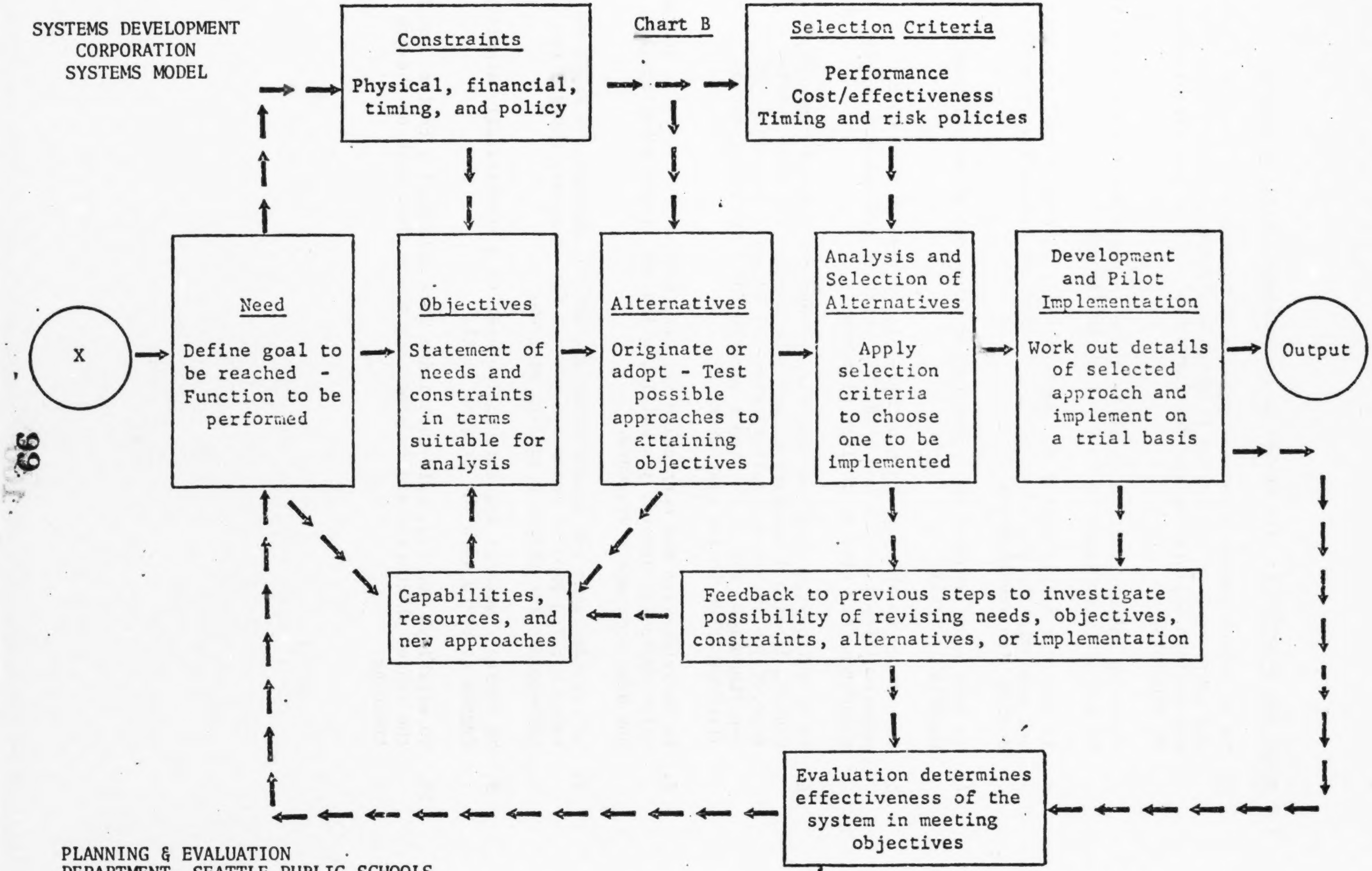
In addition to the four specific areas of auto services, welding, construction, and FEAST in the proposal, the Central Area School District planned and developed a complete curriculum for vocational education at Garfield High School. Due to the present employment crisis in the city in general and the Central Area in particular, the school district deemed it of highest priority that the entire program be operational as soon as is practical. Additional sources of funds were sought to expedite the operation of the complete program.

Chart A FLOW CHART OF EVENTS - C. O. P. 1970-71


Start of Planning: January, 1970
-Central Area Committee
-Model Cities Education Task Force
-Industry & Community
-School
-Exemplary Letter of Intent & Position Paper Submitted
Input
Process and Change
-COP Task Force Chairman: Education Specialist
-Advisory Committees
July 1, 1970 (Exemplary Proposal Submitted)
Review and Evaluation
-Limitations, facilities, funds
-Teachers recommendations, students, director
-Model Cities
-Advisory Committees
Decision
-Director
-Education Specialist
Process and Change
-Students; number and prerequisites
-personnel certification
-remodeling, acquisition of equipment and supplies
-curriculum and course objectives
September 1, 1970
Input, Review, and Evaluation
-in house; students, staff instructors
-Model Cities
-School District
-Advisory Committees
-Community
December 15, 1970
Decision
-Curriculum Coordinator
-Education Specialist
-Director
-State Director of Vocational Education
March 1, 1971
Process and Change
-Curriculum; behavioral objectives
-remodeling, acquisition of supplies & equipment
-personnel
-add middle school
-deletions & additions
-revisions of overall objectives
June, 1971
Input, Review, and Evaluation
-Third party evaluation
-Model City evaluation
-In house
-Advisory Committees
-Evaluation content
Decision
-Director
-State Director of Vocational Education
-District
-Behavioral objectives guide
-Performance Criteria
September 1, 1971
Process and Change
-Skill training
-Student placement
-Proposal for State approval
NOW 11/1/71

SYSTEMS DEVELOPMENT
CORPORATION
SYSTEMS MODEL

Chart B


Constraints
Physical, financial, timing, and policy
Selection Criteria
Performance
Cost/effectiveness
Timing and risk policies
X
Need
Define goal to be reached - Function to be performed
Objectives
Statement of needs and constraints in terms suitable for analysis
Alternatives
Originate or adopt - Test possible approaches to attaining objectives
Analysis and Selection of Alternatives
Apply selection criteria to choose one to be implemented
Development and Pilot Implementation
Work out details of selected approach and implement on a trial basis
Output
Capabilities, resources, and new approaches
Feedback to previous steps to investigate possibility of revising needs, objectives, constraints, alternatives, or implementation
Evaluation determines effectiveness of the system in meeting objectives

PLANNING & EVALUATION
DEPARTMENT, SEATTLE PUBLIC SCHOOLS

1.4 GOALS AND OBJECTIVES: (As stated in Occupational Skills Proposal)

1. To establish career areas and job clusters which will provide a broad and comprehensive curriculum in which ample opportunities exist for the optimum exploration and development of talents and capabilities of students.

2. Teaching and instruction in these career areas and job clusters will be primarily designed to foster such development.

3. To increase significantly the employability of high school students and graduates by providing skill building and occupational training during high school years.

4. To have every student who graduates or drops out of school have a marketable skill.

5. To provide on-the-job training and follow through into work opportunities for in-school students parttime and summer; and for graduates full time or college placement.

6. To establish technical and advisory groups composed of community, school, labor and management, and experts to: a) help specify student job skills and career areas, b) identify potential job opportunities, and c) develop a program for eliminating racial discrimination in job placement.

7. To individualize the curriculum for each student by providing courses which emphasize updated job skills, which are stated behaviorally and with appropiate sequence.

8. To provide funds for needed materials and for appropriate staff to carry out the project goals and provide for necessary changes to accommodate the proposed quality program.

9. To increase student academic achievement to a statistically significant degree compared with the present level.

10. To establish ongoing, self-sustaining work opportunity centers run by the school which will aid in providing the student with on-the-job training.

1.5 Extracted first year Objectives & Plans

The first year objectives and plans of the Garfield Exemplary Program are as follows (revised):

1. To plan and develop limited operation of a Food Education and Service Training Program (FEAST).

2. To plan and develop limited operation of an Auto Service Program.

3. To plan and develop limited operation of a Construction Program.

4. To plan and develop limited operation of a Welding Program.

5. To establish "technical advisory groups" in the skill areas of FEAST, Auto Service, Construction, and Welding.

6. To individualize the curriculum for each student by providing courses which emphasize updated job skills, which are stated behaviorally, and with appropriate sequence.

7. To provide inservice training for the staff members on the methods of developing Learning Activity Packages (LAP).

8. To enroll one-fourth of the student body or 250 students in an occupational development program.

9. To decrease absenteeism of the 250 students or one-fourth of the student body by 20%.

10. To change the attitude of 250 students or one-fourth of the student body toward the school.

11. Specific to those Occupational Development Program students with a g.p.a. less than 2.0.

    Assumptions:

    1. Occupational Development Program enrollment g.p.a. will be less than 2.0,

    2. Student must remain in the program for minimum of one (1) semester,

       11a. A 50% increase in semester g.p.a. per academic area will occur as compared to the Occupational Development Program enrollment base line cumulative g.p.a. per academic area, 11b. Provided the student continued enrollment in the Occupational Development Program, the 50% increase in academic area g.p.a., as compared to the enrollment base line g.p.a., will be maintained throughout the students enrollment in the Occupational Development Program.

12. To develop linkage between the middle school program and the high school occupational development program.

13. To develop at least two work opportunity instructional areas.

2.0 Response to S.F. 83 Supporting Statement: Five Broad Objectives

2.1 Provision for broad occupational orientation at the elementary and secondary school levels so as to increase student awareness of the range of options open to them (students) in the world of work. (See District plan for career education in appendix.)

A. In each Career Opportunity course (see specific behavioral objectives found in Appendix, Prerequisites...). This book is available to students and staff alike. These include

Auto Services/Service Station Attendant,

FEAST,

Construction Technology (Carpentry), and others as outlined.

B. Work Experience - handout to every student at high school level, H. Burton, Work Experience Coordinator, September 1, 1971.

C. Career Opportunity Lab and Workshop (Ninth Graders) - new in September, 1971, see page 287-292 of Prerequisites and Behavioral Objectives for Courses Taught at Garfield High School, published in August, 1971, Seattle Public Schools.

D. Plans and program development for Middle School involvement by Career Opportunity Program (Exemplary) staff: (The guidelines now provide for the following to be detailed by second semester)

1. Career orientation learning units are available to middle school teachers for student use in selected courses of study. New ones will be added from time to time as indicated. The career orientation Learning Activity Packages stress basic skills.
2. A listing of resources is available to supplement the one published by the Audio-Visual department of Seattle Public Schools.
3. Upon invitation the middle school guidance counselor in C.O.P. will meet with middle school students, either in groups or individually to discuss the Career Opportunity Program courses of study at Garfield.
4. Upon request the middle school guidance counselor will conduct tours of Garfield C.O.P. facilities for middle school students, counselors, parents, and staff.

2.2 Provisions for work experience cooperative education and similar program, making possible a wide variety of offerings in many occupational areas.

Life Sciences In-school and Summer Training Program
Part-time employment in Carpentry, Service Station
Full-time summer, part-time school Work Experience job station
Title VIII Work Study Program
National Youth Corps, and Youth in Business Club

2.3 Provisions for students not previously enrolled in vocational programs to receive specific training in job entry skills just prior to the time that they leave the school. (Some of these training programs might be very intensive and of short duration.)

Independent study (see course details in appendix)

*Students may come into the program at any time provided a plan is developed on an individualized basis.

*Completion of a learning unit is contingent upon demonstrated competence, not how much time has been spent studying it and attending "classes."

*Students can move ahead as rapidly as they are able.

*Students are given enough time and teacher help to master the material.

2.4 Provision for intensive occupational guidance and counseling during the last years of school and for initial placement of all students at the completion of their schooling. (Placement might be in a job or post secondary occupational training. Placement should be accomplished in cooperation with appropriate employment services, manpower agencies, etc.)

See "Baird form" developed for this purpose. Special emphasis was given to graduating seniors, during the spring of 1971, with special guidance and individual conferences with each student in senior class enrolled in the C.O.P. program.

2.5 Provison for the grantee or contractor to carry the program on with support from regular funding sources after the termination of the Federal assistance under Part D of P.L. 90-576. (Federal assistance under Part D cannot exceed three years.)

We are actively working toward this goal by doing two things:
1. Working toward the program to be as self-sufficent as possible with regard to bringing in monies from project activities within each work station career area.
2. Actively seeking to work into district and state vocational education plans and approval for district and state vocational funds as part of the regular budgets.

3.0 Specific Functions Developed from Local, State & National Vocational Education

Specific functions which are based on national, state and local goals for vocational education have been identified as follows:

1. population needs analysis
2. job market analysis
3. job performance requirements analysis
4. curriculum resources and ancillary services
5. program planning
6. program review
7. vocational education promotion
8. student recruitment
9. guidance and counseling
10. vocational instruction
11. student placement
12. program evaluation

These functions provide check points for program analysis and evaluation accountability by identifying specific measures for expected outcomes. If these expected outcomes are related to the product of the program, that is, the student being placed on an entry level job, the system becomes like an ecosystem in which feedback to correct necessary elements of the program's system is assured.

These twelve functions are expanded in this section to show: a) expected outcomes, and b) questions to measure outcomes.

3.1 Population Needs Analysis

a. Identify specific students in target population with unique occupational needs.
b. To what extent are we providing vocational education for those students who need it most? (For those with GPA below 2.0)

a. Advisory committees to provide more relevant instructional programs in relation to the job world
b. To what extent are the existing programs relevant to the present day and immediate future of the world of work?

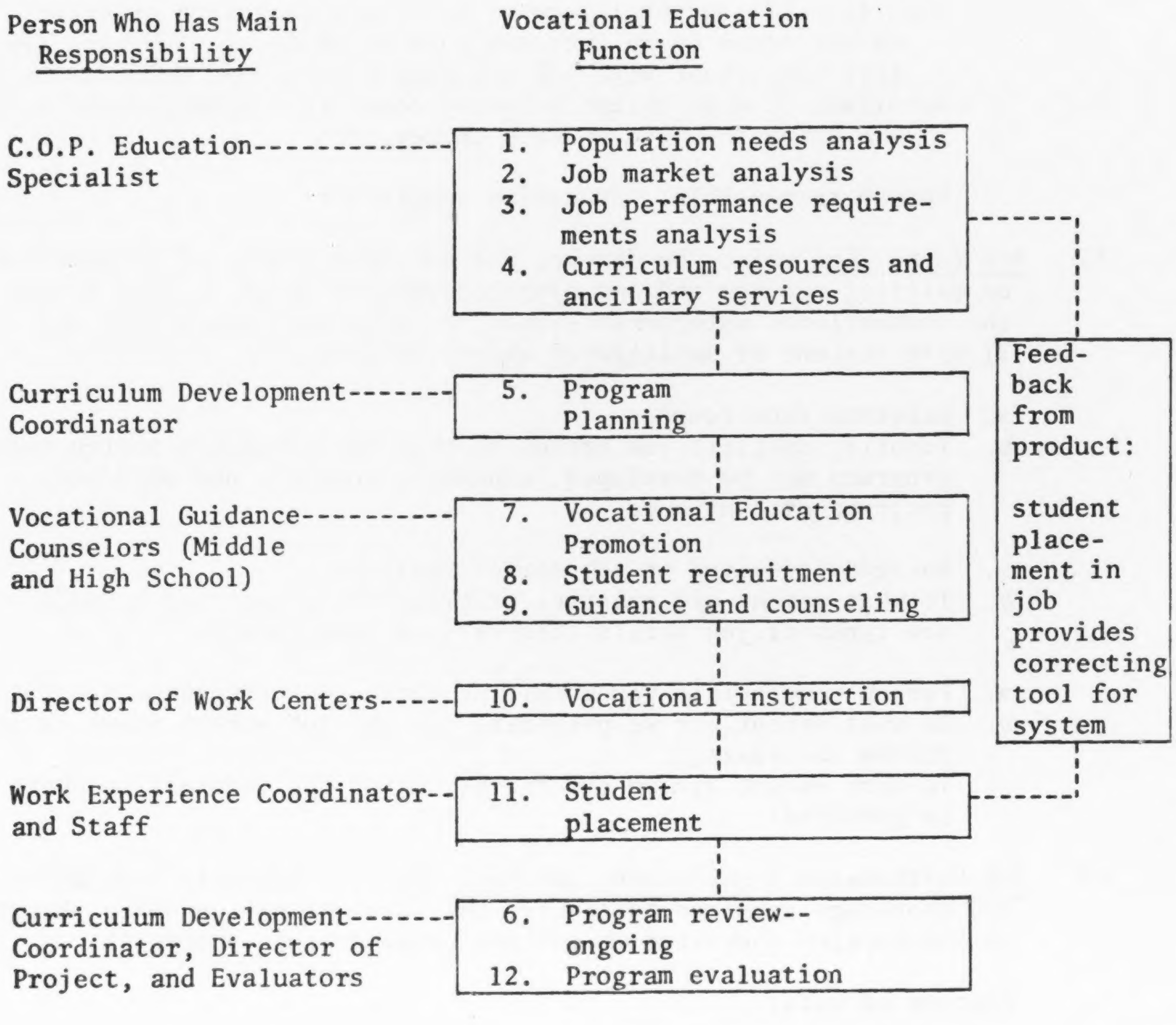
a. Provide basis for future program or course needs
b. To what extent are existing programs meeting the recommendations of advisory groups, students, parents, professional staff?

To what extent are the expressed vocational interests of students consistent with existing programs? Planned programs? Actual trends of employment?

Activities planned to provide function:

Hold advisory committee meetings with population needs analysis, and job task analysis specific to skill training

Chart C - Vocational Education Functions



Person Who Has Main Responsibility	Vocational Education Function
C.O.P. Education Specialist	1. Population needs analysis 2. Job market analysis 3. Job performance requirements analysis 4. Curriculum resources and ancillary services
Curriculum Development Coordinator	5. Program Planning
Vocational Guidance Counselors (Middle and High School)	7. Vocational Education Promotion 8. Student recruitment 9. Guidance and counseling
Director of Work Centers	10. Vocational instruction
Work Experience Coordinator and Staff	11. Student placement
Curriculum Development Coordinator, Director of Project, and Evaluators	6. Program review--ongoing 12. Program evaluation

Feedback from product: student placement in job provides correcting tool for system

Compile a listing of students with less than 2.0 GPA
Meet with parent and community groups to ascertain needs in career attitudes
Ascertain if student interests are consistent with existing career areas by an interest battery analysis; further, are they consistent with job and manpower surveys predictions
Ascertain to what extent advisory committee recommendations are being followed in each career area

Person responsible: Education Specialist

3.2 Job Market Analysis: to develop and maintain a file of information on existing and new and emerging occupations which 1) fall within the occupational categories served by vocational education; and 2) have current or anticipated excess demands.

a. Existing data sources
b. Identify specific job trends so that more relevant instructional programs may be developed, expanded, revised, and obsolete programs discontinued

a. Surveys conducted on job market analysis
b. To what extent are existing programs being modified to meet new types of job skills (clusters of like jobs)?

a. Person responsible for compiling data: COP Education Specialist
b. To what extent are we preparing for the job market needs of the future (5-7years)?
To what extent are we effectively using the information which is gathered?

3.3 Job Performance Requirements and Analysis: to identify the skills and knowledge required to achieve the occupational or other objective or instruction (behavior objectives based on task analysis)

Sources of data:

Use of Dictionary of Occupational Titles

Local surveys - job outlooks
State surveys - Employment Security
Federal - Department of Labor
Analysis of job requirements
Suggestions as received from students or employers

Suggestions as received from advisory committees

Use of occupational guides

Activities:

Utilizing skill matrices developed by selected office and

industrial occupations.
Develop others from task detailing given in Dictionary of Occupational Titles and local experts.
Hold advisory committee meetings for each occupational skill course
Coordinate vocational teachers to work experience unit
Involve all vocational teachers with placement of graduates through Work Experience Unit
Develop skill matrices for all occupational skills
Develop and revise in inservice the behavior objectives for all occupational skills based on expected outcomes at job entry level

a. Course descriptions of all offerings with behavioral objectives stated in terms of performance level, conditions and expected skill.
b. Does the program include basic performance requirements as determined by task analysis? (Including minimum levels of performance)
Have statements of excellence been developed in each occupational skill area?
Have alternate methodologies been developed in occupational skill areas for the most difficult of the performance tasks?
Have realistic and meaningful behavioral objectives been developed or revised?

a. Each course being organized (re-organized) so that performance objectives met by student prepare him for a specific job entry or for further training.
b. To what extent is each course being organized (or re-organized) so that performance objectives met by student prepare him for a specific job entry or for further training?

a. Instructional objectives conform to job performance requirements and tie in with behavioral objectives for student.
b. To what extent do instructional objectives conform to job performance requirements and tie in with behavioral objectives for student?

Surveys performed to date:

Vocational Education Study for Central Area Schools - December 10, 1969, by John Fishbaugher, William Harris, Sr., and Richard Brouns.

Phase I Report of Occupational Education Steering Committee, Seattle Public Schools, December 16, 1969, Captain Griffith Evans, Chairman.

Occupational Manpower Projections, 1966-68-71 for Puget Sound Area, Puget Sound Metropolitan Area Washington State Occupational Manpower Projections, 1966-68-71. Washington State Employment Security Department and United States Department of Labor United States Employment Service, August, 1967.

Fiscal 1971 Employment and Projected Expansion and Replacement Needs for Fiscal 1972 and Fiscal 1976, State of Washington Employment Security Department, May, 1971 (preliminary prediction projections, not for publication).

(1970-71 School Report) Racial Distribution Among Pupils and Employees 1970, Seattle Public Schools. Planning and Evaluation Department, Dale Goss Director, Research and Evaluation Office, Harold Reasby, Supervisor. Prepared by Cathy Candor and George Shepherd, Research Analysts, October 1, 1970.

Seattle Area Industrial Council, "Manpower Needs in the King, Pierce, Snohomish, and Kitsap County Area in 1971." (1969)

Occupational Knowledge Among High School Students of Eastern Washington, a survey of 24 high schools, by Lois B. DeFleur, Associate Professor, Washington State University, 1970.

3.4 Curriculum Resources and Ancillary Services: to obtain the resources necessary to improve existing and/or to develop new vocational education programs. Such resources include materials, equipment, physical plant, trained instructors, and curriculum guides in form of behavioral objectives derived from task analysis.

Person responsible for identifying needs for programs and functions:
Education Specialist
Advisory committees
Teachers
Department chairmen
District level and school administrators, COP staff
Coordinators of program development
Director of vocational education (local, state, and staff) Coordinating Council

Persons having input probably include all of above.

Persons establishing priorities and responsible for approving vocational program:
Director of vocational education at local district level.
Director of project.

Practices and policies to assure professional and occupational competency of instructional staff (staff development and inservice)

1. All personnel who teach in programs funded under P.L. 90-576 meet or exceed the provisions for qualified instructors under State certificated or Voc. Ed. certification.

2. Conduct curriculum development inservice workshops during and preceding school year for all instructors.

3. Hire educational or special consultants as needed for special projects.

3.41

Staff Development and In-Service Program for C.O.P. for 1970-71 consisted of the following:

1. Inclusion as participants in "Summer '70 Workshop" for instructors and administrative staff: Cosmetology, Construction Technology, FEAST, Sewing for Profit, Automotive Services, Retailing, Nursing Aide/Orderly, Barbering, and Education Specialist (Coordinator).

2. Educational Professional Development Act (EPDA), Department of Vocational Education, State of Washington, In-Service Training Sub-Project B, Summer Workshop August 17-21 and extending through June 30, 1971, involving all instructor-consultants and Education Specialist.

3. Central Area Schools in-service project involving weekly meetings of staff and four Impact Meetings to which all instructors and staff attended. The first draft of the behavioral objectives was developed during this in-service program.

On the following pages are the agenda for the " Summer '70" C.O.P. participation workshop, the EPDA one-week Workshop, and "A Readiness for Fall Workshop - Project Garfield" August 23-27, 1971. See appendix for details of Individualizing Learning - A Resource Book, used in the Readiness for Fall Workshop.

Staff Development and In-Service Program for C.O.P. for 1971-72

3.42

I. Behavioral Objectives
    A. Revise and rewrite behavioral objectives for Total Curriculum from present guides
    B. Criteria for revisions based on major criteria:
        1. Content of course considers major concepts for grade level
        2. Gives conditions for performance
        3. States minimum performance criteria and measurable outcomes and expectations
    C. Set up time line, starting with priorities to be set up
    D. Follow through

II. Formulate Learning Activity Packages
    A. Ascertain from study of behavioral objectives of major courses which behavioral objectives are most important learning difficulties
    B. Develop learning activity packages to solve the most important learning difficulties, basic skills in reading and math and then in others
        1. Develop reading and math and basic skills behaviors on a priority basis into learning packages as alternative methodologies
        2. Develop others according to time line

- C. In C.O.P. and career orientation area, develop linkage with Middle School in order to
    1. Ascertain curriculum areas and set priorities for development of LAP's for use by Middle School personnel
    2. Develop LAP's, stressing behavioral objectives in basic skills in career orientation clusters

III. Write descriptive statements of what excellence means in each major course within each department
- A. Ascertain major courses within each department
- B. Set priorities, stressing basic skills excellence
- C. Write statement, based on criteria of minimum performance level of behavioral objectives for that major course

IV. Carry out Tuesday Seminars throughout year as a continuing in-service program for teachers and staff
- A. Ascertain some interest in an area by discussion and recommendation by a department head, and set topic
- B. Carry out technical items necessary to establish discussion area, persons to be invited as expert discussion leaders, schedule, etc.
- C. Schedule of past Tuesday seminars as follows:
    1. B. F. Skinner's Beyond Freedom & Dignity (discussion 9/7/71)
    2. Wage and Price Freeze, Phase I (9/14/71)
    3. New Physical Assessment Conditioning Program (9/21/71)
    4. The New Image of Music by George Rochberg (discussion 9/28/71)
    5. Cost Accounting (discussion 10/5/71)
    6. The Environmental and Experiential Theatre (Mr. McGrath - lecture and discussion 10/2/71)
    7. Nixon's Economic Policies (Dr. Roger Miller, University of Washington - explanation and discussion 10/19/71)
- D. Carry out tentative schedule for rest of school year, based upon points A and B above
- E. Participation by high school staff at series of four Impact Meetings for all Central Area Schools staff.

3.43

Career Opportunity Workshop Agenda *** August 17-21, and 31st, 1970

Garfield High School, Central Area Administration, Seattle Public Schools.

Monday: (August 17)

8:45 am - 9:15 am: Registration for participants, coffee served, Library Garfield A

9:15 am: Introduction and opening of Career Opportunity Workshop

9:30 am - 11:00 am: First General Workshop Session: The Career Opportunity Curriculum and what it will mean to Garfield Graduates!!.

What will be the general approach?
What are work opportunity centers?
Who are our students?
How does a tradesman become a teacher?
What are other mysteries? (Or, how does one cut through the educational jargonne?)

11:15 am: Leave for Garfield B - to visit the work opportunity on-site centers.

11:30 - 12:00 noon: Inspection of work opportunity Garfield B centers,

1:00 pm: Afternoon registration at Garfield A (Main Library - second floor)

1:30 - 3:30 pm: Specialized sessions by Career Opportunity Area.

3:30 - 4:00 pm: Coffee hour

Tuesday: (August 18)

8:30 am - 9:00 am: Registration and coffee

9:00 am: Second General Session: Career Opportunities and then What?

9:15 am - 12:00 noon: Seminar by labor and management, apprenticeship programs, and Community Involvement.

1:00 pm: Afternoon registration at Garfield A, Main Library.

1:15 - 3:30 pm: Specialized sessions by Career Opportunity area.

3:30 pm - 4:00 pm: Coffee hour

Tuesday: August 18

Main Library - Garfield High School (second floor)

Agenda for Tuesday:

8:30 - 9:00 A.M. Registration and coffee (library classroom)

9:00 A.M. Second General Session: Career Opportunities and then what?

Introduction:

9:15 - 12:00 Seminar by labor and management, apprenticeship programs and community involvement.

9:15 - R.N. Buckingham, Carpentry Apprenticeship programs.

9:30 - 10:00 A.M. Central Area Contractors: William Conley, Member of the Board. Construction Technology.

10:00 - 10:25 A.M. Barbering: Wilson (Curly) Graves, licensed barber.

10:25 - 10:35 A.M. Iron workers and apprenticeship program: Al H. Sonn, Coordinator for Iron Workers Apprenticeship Training Programs.

10:35 - 11:00 A.M. Sheet Metal Apprenticeship Program, Jim P. Morris, (25 minute film on program)

11:00 - 11:15 A.M. Bethlehem Steel Co., Supt. of Maintenance, Dennis Miner.

11:15 - 11:30 A.M. Community involvement and advisory committees Central Area Council - advisory chairman --

11:30 - 12:00 noon: FEAST - training program film. Comments on modification for Garfield, Myrtle Law.

Noon: Everyone on own for lunch.

1:00 - 3:30 P.M. Individualized sessions for career opportunity curriculum.

3:30 - 4:00 P.M. Coffee hour in Library classroom at Garfield A.

Wednesday and Thursday: (August 19 -20)

8:30 am - 9:00 am: Registration and coffee,Garfield A, Main Library.

9:00 - 12:00 noon: specialized sessions by Career Opportunity Area

1:00 - 3:30 pm: Specialized sessions by career opportunity area

3:30 - 4:00 pm: Coffee hour

Friday:(August 21st)

8:30 - 9:00 am: Registration and coffee hour

9:00 - 11:30 am: Specialized sessions by Career Opportunity Area

11:30 - 1:15 pm: Luncheon (place to be announced)

1:15 - 2:45 pm: Demonstration 3M. Bellevue

3:15 - 4:00 pm: Third General Session - final Wrap Up. (Tentative Main Library "A") and Coffee hour.

Monday: (August 31st)

8:45 - 9:00 am: Coffee hour - Activity Center, Garfield "A"

9:00 - 12:00 noon: General Faculty meeting with total instructor staff, Activity Center, Garfield "A".

1:00 - 3:30 pm: Second part of General Faculty meeting, special departmental sessions in places to be announced.

Note: School starts with students present, September 1 at approximately 8 am.

Since Registration will occur during the week of August 17 through 21st, some assignments will be expected to cover areas of registration in order to acquaint COP staff with students. This will probably occur during Specialized sessions and in evening registration procedures, and on a volunteer basis.

3.44

EPDA CAREER OPPORTUNITY WORKSHOP PLANNED FOR AUGUST 26, 27, 28, and 31, 1970

IN-SERVICE COP

Wednesday: August 26 (morning and afternoon)

8:45 - 9:00 Registration, coffee served Portable 2 and Room 116 Garfield A.

9:00 - 11:30 Career Opportunity Curriculum and what it will mean to Garfield Graduates:

What will be the general approach?
What are work opportunity centers?
Who are our students?
How does a tradesman become a teacher?
What are other mysteries (or, how does one cut through the educational jargonne?)?

11:30 - 12 noon Inspection of work opportunity Garfield B centers.

1:00 - 3:30 Specialized sessions by Career Opportunity Area, Portable 2 and Room 116 at Garfield A. (Registration)

Thrusday: August 27 (morning and afternoon)

8:45 - 9:00 Registration.

9:00 - 12 noon Specialized sessions by Career Opportunity, Portable 2 and Room 116, Garfield A.

1:00 - 3:30 Specialized sessions by Career Opportunity, Portable 2 and Room 116, Garfield A, after registration.

Friday: August 28 (morning and afternoon)

8:45 - 9:00 Registration.

9:00 - 12 noon Specialized sessions by Career Opportunity, Portable 2 and Room 116.

1:00 - 3:30 Registration and specialized sessions by Career Opportunity, Portable 2 and Room 116.

The specialized sessions are for the purpose of reviewing the course outlines and guides for each career area and to relate these to the first several days or few weeks of school to daily lesson plans and what will be expected to be the instructional design for opening days of school. Also to become familiar with facilities and arrangement of rooms in order to function from the beginning of school, within each career area and center.

Monday: August 31 See General Faculty Meeting plan for that day.

3.45 A Readiness For Fall Workshop
Project Garfield
August 23 - 27, 1971

Task No.:

1. Development of student-centered learning activity packages (LAPS)
2. Study of classroom management system for Individualized Learning
3. Development of teamwork relationships and organization

Workshop Schedule

Monday, August 23

8 - 9 Project Garfield Orientation/Organization
9 - 1 Work on Tasks 1 and 2

Tuesday, August 24

8 - 12 Work on Tasks 1 and 2
12 - 1 Development of Teamwork Relationships

Wednesday, August 25

8 - 12 Work on Tasks 1 and 2
12 - 1 Classroom Management for Alientated Students (panel discussion)

Thursday, August 26

8 - 12 Work on Tasks 1 and 2
12 - 1 Individual Team Development

1. Language Arts-Communication Team - Room 103
2. Math-Science Team - Room 104
3. Personal Development Team - Room 105
4. Career Opportunity Team - Room 106
5. Counseling Team - Activity Center
6. Attendance Team - Attendance Office
7. Media Development Team - Reproduction Room

Friday, August 27

8 - 12 Complete Tasks 1 and 2
12 - 1 Individual Team Development; Wrap up Activities

Same Room Assignments for Teams

Anticipated building maintenance (upgrading) and remodeling for current school year:

Welding program - space identification, planning, and implementation to start program - expand.

Remodel child care wing to accommodate expanded program

Move to Portable Wing - for COP staff

a. An increase in teaching effectiveness through the use of curriculum resources and implementation of the behavioral objective approach
b. To what extent are materials and equipment up to date and comparable to that being used in private industry?

a. Development of performance objectives through the negotiation process
b. To what extent are the performance objectives realistic in view of constraints?

a. Develop a system of program evaluation
b. To what extent is the system for evaluating the program directly related to performance objectives?
   To what extent are the curriculum materials adequate in quantity and quality?

PROCEDURES FOR DEVELOPING, EVALUATING, AND REVISING CURRICULUM GUIDES, COURSE OUTLINES, AND COURSES OF STUDY BEHAVIORAL OBJECTIVES

Persons responsible for determining that curriculum guides will be developed for various programs: General advisory committee and vocational education staff

Persons evaluating and revising curriculum guides, course outlines, and/or course of study behavioral objectives: specific advisory committees, department chairmen and curriculum specialists, program evaluators, instructors.

Persons recommending approval of curriculum guides: Advisory Committee, Curriculum Development Coordinator, Vocational education district. The State Vocational Education approves.

Ancillary and supporting services:

3.46
Assess existing a-v materials and modify as determined by assessment

Assist vocational education staff in summer placement in their field of instruction

Conduct annual inservice workshop for vocational education staff

Establish a working relationship with the district vocational education department

3.47
Dissemination activities

Tour of Facilities: a tour of the facilities is available upon request, or appointment, to individuals or groups, during school hours. Objectives of dissemination activities: As provided within guidelines for exemplary programs, to disseminate materials, developed under the program to other school districts upon written request for such information, address requests to Mr. H. Lynn Caldwell, Associate Principal, Garfield "B", Career Opportunity Program, 2101 South Jackson Street, Seattle, WA 98144.

Local, out of district, and out of state visitors include:

Mrs. Sharada Nayak, Educational Consultant and Program Coordinator for Educational Resources Center, New Delhi, India - January, 1971

Title VIII National Conference - March 11, 1971

Arkansas:

Mr. Martin Filogamo, Project Director, Title VIII, Instructional Center, Texarkana School District #7, 223 Short Tenth Street, Texarkana, Arkansas 75501

Dr. Lawrence Roberts, Education Service Center, Evaluator, Texarkana School District #7, P. O. Box 689, Magnolia, Arkansas 71753

Kentucky:

Dr. David Whitehead, Superintendent of Schools, Paducah Public Schools, 10th & Clark Streets, Paducah, Kentucky 42001

Mrs. Jessie Beasley, Project Director, Title VIII (same address)

Mr. David Lusk, Evaluator Title VIII, Paducah Public Schools (same address)

Maryland:

Mr. Quentin R. Lawson, Project KAPS, Baltimore City Public Schools, 411 North Caroline, Baltimore, Maryland 21205

Mr. Earl Jones, Evaluator, Project KAPS, Baltimore City Schools (same address)

Massachusetts:

Mr. Robert J. Nagle, Superintendent, Fall River School District, 417 Rock Street, Fall River, Massachusetts 02720

Mr. William LeBlanc, Evaluator, Quequechan Center, 33 Quequechan Street,
Fall River, Massachusetts 02723

Missouri:

Mr. Ernest Jones, Acting Superintendent, St. Louis Public Schools,
911 Locust Street, St. Louis, Missouri 63101

Mr. Rufus Young, Title VIII Project Director, Northwest-Soldan District,
5331 Enright Street, St. Louis Missouri 63112

Mr. Henry Tupper Drane, Evaluator, Staff Member Northwest-Soldan District,
5331 Enright Street, St. Louis, Missouri 63112

New York:

Mr. Phillip J. Loguidice, District Superintendent, Sole Supervisory
District #1, P. O. Box 250, Fredonia, New York 14063

Mr. Richard E. Miga, Project Director, Title VIII, Box 250, Fredonia,
New York 14063

Mr. Roy Hardy, Evaluator, Title VIII, Staff Member, Box 250 Fredonia,
New York 14063

Ohio:

Dr. Wayne M. Carle, Superintendent, Dayton City Schools, 348 West
First Street, Dayton, Ohio 45402

Mr. Charles H. Rivers, Project Director, Title VIII, Roosevelt High
School, 2013 West Third Street, Dayton, Ohio 45417

Mr. Peter Fellenz, Evaluator, Title VIII (same address)

South Dakota:

Mr. Terry Pexa, Project Director, Title VIII. Shannon County Independent School District, P. O. Box 403, Pine Ridge, South Dakota
57770

California:

Mr. George McCabe, Auditor, Title VIII, Manpower Research Corporation,
Box 1006, Santa Rosa, California 94928

Dr. L. Meshover, Auditor, Consultant, San Francisco State College, San
Francisco, California

Mr. Louis Jones, Project Director, Dropout Prevention Project, Oakland
Unified School District, 2607 Myrtle Street, Oakland, California 94607

Dr. Russell Jackson, Superintendent, East Orange School District, East Orange, New Jersey - April, 1971

All School Open House: 350 persons most of whom were from the greater Seattle area including several members of the Seattle School Board signed the guest book as visitors to Garfield "B" facilities during the evening tour of facilities. Many of the C.O.P. advisory committee members were present to assist the instructors in presentation of the facilities to the public. April 5, 1971, 7:30 to 9:30 p.m.

Jesse Jacobs, President School Board, Newark Public Schools, Newark, New Jersey - May 1971

Dr. Lois DeFleur, Washington State University, Pullman, Washington - May, 1971

Dr. Robert Fischer, President Oberlin College, Oberlin, Ohio - May, 1971

Dr. Robert B. Morris, Dean of University of Connecticut, Continuing Education Services, Storrs, Connecticut 06268 - September, 1971

Advisory committee membership tours following advisory committee meetings

Materials to be disseminated upon request: (In appendix and back cover pocket)

4-4-4--The Central Area Educational Plan, Roland N. Patterson, Assistant Superintendent, Seattle Public Schools

Prerequisites and Behavioral Objectives for Courses Taught at Garfield High School, by Garfield Staff, 1971, Seattle Public Schools

Garfield High School - Open House Brochure

FEAST - Food Education and Service Training, Seattle Public Schools

Continue to encourage staff to engage in activities that lead to increased competencies

Increase the numbers of staff participating in conferences and workshops (Move to have them go at project expense)

Expected outcomes

Upon completion of first year, the vocational staff will have behavioral objectives for each course of study based on performance criteria, with minimum standards of performance

Develop additional programs of interdisciplinary fields

Increase competency of staff

Establish program administrative services

Aid in determining district policy

3.5 Program Planning: to integrate information on population needs and job opportunities in the light of the area manpower plan and budget restraints to develop new and improved curricula so that a proper assortment of programs is offered.

Persons utilizing the information for planning programs as described above:

Education Specialist
Advisory committee members
Occupational Education Task Force
Vocational Education Task Force
Instructors
Curriculum Development Coordinator
Assistant Development Coordinator
Director of Vocational Education (District staff)
Assistant Superintendent for Central Area

Persons responsible for input to the planning functions?

Certificated and advisory committee personnel directly concerned with the program, especially COP Education Specialist

Flow chart:

Begin - Need for planning

Input - Advisory committee
Occupational Education Task Force
Vocational Education Task Force
Model Cities Education Task Force and Planning
Instructors
District Vocational Education Staff

Assistant Superintendent for Central Area
COP Education Specialist
COP staff

Decision - Instructor and Department Chairman
Curriculum Development Coordinator
Director of Project

Process -Evaluate information by COP staff

Input - Staff recommendation

Decision - Curriculum Development Coordinator and
Director of Vocational Education (district)

End - program change

All above are involved in the decision-making process with the Director of the Occupational Skills Development Program having overall responsibility.

Expected outcomes 1970-71

a) Obtain data to determine program feasibility

b) To what extent are the program enrollments consistent with the job market area to be served? To what extent have population and manpower surveys been used?

a) Increased efficiency of any research efforts such as surveys, questionnaires, etc.
b) To what extent are program graduates entering or being placed in a similar job in job cluster area in which they received training?

a) Program advisors become more oriented to the outputs of the program
b) To what extent are programs affected by the recommendations of the advisory committees and program advisors?

a) Articulate with other vocational training agencies in Cooperative Education ventures
b) To what extent have other vocational training agencies been contacted to share resources? To what extent has the community college been contacted and used?

a) Obtain state vocational education approval for program
b) To what extent has the program met state guidelines and which elements have been approved? To what extent have district and state vocational education personnel been consulted in the development of plans?

3.6 Program Review: a) to correlate the COP plan to be consistent with district plan for vocational education and state plan for vocational education before it goes to the district for approval by the State Vocational Education(Coordinating Counsel for Vocational Education).

Persons reviewing the district and state plans
Persons reviewing the school plan (Central Area COP high and middle school) for vocational education in sequence.

Curriculum Development Coordinator and COP staff

School Principal
Central Area Assistant Superintendent

District Director of Vocational Education and staff

District Superintendent
District Board of Directors (School Board)

State Director of Vocational Education (Coordinating Council for Vocational Education)

b) Questions to measure outcomes with regard to planned evaluation criteria

To what extent are program objectives realistic?
To what extent do vocational education goals meet population needs?
To what extent are we providing for an analysis of the job market, population?
To what extent are the resources available to do the job required?
To what extent are expected outputs based on student needs and job market analysis?
To what extent is the public informed of vocational education programs?
To what extent are students assured a personal introduction to vocational education?
To what extent are graduates placed in occupations meeting their needs and employee needs?
To what extent do vocational education programs meet slated objectives and District and State goals?

3.7 Vocational Education Promotion: To plan and implement those activities necessary to inform the public of the strengths and merits of vocational education (includes students from Middle School through Seniors)

Activities:

Registration brochures to all students 8-12 (secondary)

Information for registration to registrar and counselors
Newspapers - news events
Open house - April 5, 1971

Table I - Action on Course Approval and Instructor Certification

Course Title	1970-1971 Instructor's application for certification	Instructor certification approved	Course submitted to State Voc. Ed. 1970-71	Approved, 1970-1971	1971-1972 Instructor's application for certification	Instructor certification approved	Course submitted to State Voc. Ed. 1971-72	Approved, 1971-1972
Auto Services (Auto Technology Voc.)					X	X	X	X
Barbering	X	X	X	-	(deleted)			
Career Lab Workshop (Ninth Grade)					○	○	○	
Carpentry (Construction Technology)	X	X	X	-	X	X	X	X
Child Care	X	X	X	X	X	X	X	X
Cosmetology	X	X	X	-	X	X	○	
Drafting	X	X	X	-	X	○	X	X
Dry Cleaning	X	X	X	-	X	X	X	X
Electrical Worker	X	-	X	-	X	○		
FEAST (Food Management & Business)	X	X	X	X	X	X	X	X
FEAST, English	X	X	X	-	-	-	-	-
Lab Assistantship (Biology III-IV)	X	-	X	-	X	X		
Marine Engines					X	○	X	X
Nursing Aide/Orderly	X	X	X	-	X	X	X	X
Radio/TV					X	○	○	
Salesperson (Retailing)	X	X	X	X	X	X	X	X
Service Station Attendant	X	X	X	-	X	X	X	X

Table I, continued

	1970-1971				1971-1972			
Course Title	Instructor's application for certification	Instructor certification approved	Course submitted to State Voc. Ed. 1970-71	Approved, 1970-1971	Instructor's application for certification	Instructor certification approved	Course submitted to State Voc. Ed. 1971-72	Approved, 1971-72
Sewing for Profit	X	X	X	X	X	X	X	X
Sheet Metal Worker	X	X	X	-		(deleted)		
Welding					X	●	●	
Work Experience					X	●	●	
Director of Work Centers					X	X		
Education Specialist					X	X		
Counselors					●	●		

(Independent Study may be contracted in any Career Opportunity course.)

X Action as indicated

● In process (not yet approved and/or being submitted)

Coordination of career guidance counselor and work experience staff

Orientation program for Middle School (5-8) students and staff

Ninth Grade Career Lab Workshop (Career Opportunity Program) instructed by COP guidance counselor
Handouts, brochures, announcements, etc.

Tours of facilities

Coordination meetings with school administrative staff, and integration with other programs, such as Title VIII and Extended Services Program personnel and students, special programs for Transfer-in students (part-time) and young adults.

Affirmative action programs - Life Sciences Summer Training Program

(Samples of promotional information may be found in the appendix.)

Expected outcomes:

a) Public (includes students) is aware of school and district's increased emphasis on vocational education
b) To what extent are students leaving the high school with a saleable skill?

a) Parents are aware of need for vocational education
b) To what extent is there an increase of parents demanding vocational education courses for their children? To what extent is the number of students taking academic college preparation programs more congruent with the number of students actually attending and completing college?

a) An increased demand for vocational education (COP) on part of students
b) To what extent is the number of students enrolled in the vocational education classes increasing?
How does the rate of increase compare with enrollment projections?

a) An increased allocation by district and state of resources for vocational education
b) To what extent are allocations of resources being sought?

3.8 Student Recruitment: to identify those young people - already in school or out of school - who need vocational education and to encourage them to enroll in programs of instruction, either part or full time.

Present activities to encourage persons to enroll in vocational education program

Person who contacts students or potential students:

instructors, department chairmen, COP staff
counselors
student peers, former student participants
work experience unit
Advisory committee members

Kinds of contacts:

individual counseling
group counseling - in classes
Middle School or Ninth grade orientation program
Printed materials
Interview in Work Experience for job placement
Field trip exposure, individual or group, by employers

Administration of interest, aptitude, GATB tests

Activities:

Length of courses to be based on objectives and performance level criteria rather than hours in class

Course requisites for admission based on individual, except in case of prerequisites must demonstrate performance level achievement at minimal entrance.

Offer selected courses on optional basis: 1) regular scheduled classtimes and 2) independent study contract

Curriculum related to job task detailing, specific behavioral objectives based on skill on the job with minimum skill performance level stated. (Statement of excellence also given.)

Provide placement services in terms of work-study programs or entry level placement upon completion of the program

Provide basic skills development - service such as mathematics continuous progress lab with performance level math testing to ascertain present level of performance of math skills and a planned program set out for development of the student's skills.

Provide program flexibility and individual supervision in the development of minimum to maximum performance level skills based on known behavioral objective criteria. Add student aide and paraprofessional tutorial aid to supplement the instructors.

The behavioral objectives are placed in sequence (where indicated) and the student can measure his own progress in developing the skill or task outlined in the behavioral objective by the day, week or predetermined interval.

Provide options for completing and mastering selected difficult behavioral objectives based on learning activity packages involving basic skills.

Expected outcomes:

a. Expand student enrollment in the career opportunity program to cover all students (one-third first year, one-half second year, all third year)
b. To what extent has the number of students enrolled in Career Opportunity Program courses increased? To what extent are students continuing the second semester or advanced in order to achieve minimum performance level skills based on the behavioral objectives? To what extent has the academically inclined student enrollment increased? (GPA above 2.0); below 2.0 GPA?

a. Increased opportunity for students to receive career orientation and occupational skill information through guidance personnel and instructors regarding vocational choice and selection of courses.
b. To what extent is the guidance unit providing meaningful service? To what extent has the Ninth Grade Career Workshop influenced enrollment in prerequisite courses? in occupational skill courses?

a. Increased number of high school graduates in training programs offered by community colleges, apprenticeship training agencies, and industrial programs.
b. To what extent have graduates of the occupational skills program enrolled and engaged in training programs at community colleges? at apprenticeship programs? at other training programs? Enrolled at college in similar skills training programs?

a. "Rub-off" and constructively affect basic skills development by students in non-vocational type courses.
b. To what extent have GPA's of students in career opportunity program courses been increased? Courses taken simultaneously? Courses taken subsequently?

3.9 Guidance and Counseling: to provide students with sufficient information to enable them to make meaningful and informed occupational choices.

Job market and population information is collected through function 2. Potential students through the middle school program, the Ninth Grade Career Lab Workshop, and other young people are then provided with job market information through the following means:

Middle school instructors and counselors
Career guidance counselors and counselors
Career opportunity instructors
Pamphlet and reading files in library

Persons responsible for providing job information to students:

Counselors
COP instructors
Librarian
School District Vocational Education Department

Tests administered to determine:

student interests: (See Baird Form in Appendix)
student abilities: skill performance in prerequisite and other courses, and in occupational skills classes, GATB

How will potential occupational skills students be provided with job market information?

Units (LAP's) in regular courses - middle school students
Presentations by career counselors, speakers from business, industry
Enrollment in Ninth Grade Career Lab Workshop
Audio-visual materials - at all levels

How will test results be made known to the students?

Individually as follow up of Senior form, or other event
Group counseling sessions by career guidance counselors

Expected outcomes: Increased student, parent, and staff awareness of occupational information

a. Implementation of Ninth Grade Career Lab Workshop
b. To what extent are Ninth graders enrolling in this workshop?

a. Implementation of Middle School occupational skills program
b. To what extent are students being informed about occupational careers and job clusters at the middle school level (5-8)?

a. To what extent is the enrollment increasing in occupational skills (COP) program courses?
b. To what extent are students entering occupational skill areas of their choice?

3.10 Vocational Instruction: to provide instruction to students for the purpose of preparing them for 1.) entry level employment, 2.) community college or other training institutes, or 3.) advanced vocational-technical training at a university.

The Career Opportunity Program courses were designed to meet the basic criteria for all vocational education programs outlined by the State Department of Instruction and the Coordinating Council for Vocational Education. (Proposals were submitted to these approving agencies.) The materials on the following pages comprise tables which show courses developed by C.O.P. staff for inclusion in the program, schedules, and details of each course by area.

Table II - Courses of Study in C.O.P. 1970-71; 1971-72

Table III- Schedule of Classes, C.O.P: 11/70; 3/71 & 9/71

Table IV - C.O.P. Student Enrollment, 1970-71 School Year

a.) To have each course accepted and approved by State Vocational Education certifying bodies;
b.) To what extent have courses been accepted and approved for State Vocational Education Certifying bodies?
To what extent have advisory committees given recommendation for approval of courses and instructors?

a.) To set out behavioral objectives which will 1.) identify the desired behavior, 2.) set minimal passing impartial public standards, and 3.) specify or imply the conditions under which the desired behavior can be expected to occur.
b.) To what extent have behavioral objectives been set out in this fashion?
To what extent have behavioral objectives been rewritten and revised since the book Prerequisites and Behavioral Objectives for Courses Taught at Garfield High School was published in August of 1971?

a.) Students will demonstrate a satisfactory level of performance in the behavioral objectives;
b.) To what extent have students demonstrated a satisfactory level of performance (review of check lists)?
To what extent have students received Certificates of Excellence in Career Opportunity Program courses?
To what extent have students received Vocational Certificates upon completion of behavioral objectives in a course of study?
To what extent have students coming into the program with less than a 2.0 grade point average been able to upgrade their GPA?

Table II - Courses of Study 1970-71 & 1971-72

Course Number	Course Title	Prerequisite	Fr	So	Jr	Sr
75434	Auto Services (Voc.)	Auto Technology II			x	x
98090	Barbering **	Grade level			x	x
42104	Career Lab Workshop I (9th Grade)*	None	x	x		
98514	Carpentry I (Construction Technology)	Grade level			x	x
98673	Carpentry II (Construction Tech. II)	Construction Tech. I			x	x
71614	Child Day Care	Basic Home Economics or have a child			x	x
98134	Cosmetology I	Grade level			x	x
98144	Cosmetology II	Cosmetology I			x	x
77603	Drafting I	Grade level			x	x
77613	Drafting II	Drafting I			x	x
77623	Drafting III	Drafting II			x	x
77633	Drafting IV	Drafting III			x	x
98203	Dry Cleaning I	Grade level			x	x
98214	Dry Cleaning II	Dry Cleaning I			x	x
98234	Electrical Worker I	Grade level			x	x
98244	Electrical Worker II	Electrical Worker I			x	x
98254	Electrical Worker III	Electrical Worker II			x	x
98264	Electrical Worker IV	Electrical Worker III			x	x
72684	FEAST, Meal Mgt. I	Grade level, plus the student must sign for both FEAST Business & Meal Management.			x	x
72694	FEAST, Meal Mgt. II				x	x
72664	FEAST, Meal Mgt. III				x	x
72674	FEAST, Meal Mgt. IV				x	x
26712	FEAST, Business I *	Grade level plus the student must sign for both FEAST Business & Meal Management.			x	x
26722	FEAST, Business II *				x	x
26732	FEAST, Business III*				x	x
26742	FEAST, Business IV *				x	x
06710	FEAST, English I**	Grade level				x

Table II, continued

Course Number	Course Title	Prerequisite	Fr	So	Jr	Sr
33103	Lab Assistant I (Bio.III)	Biology I & II			x	x
34103	Lab Assistant II(Bio. IV)	Biology III			x	x
70004	Marine Engines	Grade level			x	x
33114	Nursing Aide/Orderly I	16 years of age			x	x
33124	Nursing Aide/Orderly II	Nursing Aide I			x	x
02994	Radio/TV (technical but not repair)	Grade level			x	x
48611	Retatiling I	Grade level			x	x
48621	Retailing II	Retailing I			x	x
98894	Service Station Attendant I	Auto Tech. I or Grade level			x	x
98904	Service Station Attendant II	Service Station I			x	x
71664	Sewing for Profit I	Clothing I plus permission			x	x
71654	Sewing for Profit II	Sewing for Profit I			x	x
71674	Sewing for Profit III	Sewing for Profit II				x
98610	Sheet Metal Worker **	(Now incorporated into Carpentry-Cons. Tech.)			x	x
98803	Welding	Grade level			x	x
97010	Work Experience	(Application, placement on job by W.E.)	x	x	x	x
95100	Independent Study	(Application and acceptance of plan)	x	x	x	x

* One period only; all others a 2-period block of time

** Deleted in 1971 when curriculum absorbed in other course

Note: A detailed description of the program courses and their behavioral objectives may be found in the appendix.

Table IIIa
CAREER OPPORTUNITIES PROGRAM

Teacher	Room	8:00-9:25 1st period	9:35-10:45 2nd period	11:40-1:00 3rd period	1:10-2:30 4th period
Burnside	10	Draftsman			
Daniels	3			Cosmetology I	cont.
Francis	133	Dry Cleaning	cont.		
Garry	3				Barbering
Huey	7B		Electrical		
Jones	309 "A"				Salesperson
Roll	106	Nursing Aid	cont.		
Peakes	138		FEAST	cont.	
Piety	115	Life Sciences	cont.		
				Life Sciences	cont.
Shigaki	131		Clothing (Fashion) Construction		
Slade	5	Construction Tech. - Carpentry		Career Core	Prep
		Construction Tech. - Carpentry		Prep	Sheet Metal
Schuller	"D"	COP Coordinator	cont.	Dept. Head	COP Coordinat
		COP Coordinator	cont.	Dept. Head	COP Coordinat

All classes at Campus "B" except LA FEAST, Bus. Math, Feast, and Salesperson which are at "A". COP office are at Campus "B"; Life Sciences Office 117, campus "B"

COP Staff: Helene Schuller, Education Specialist
Milton V. Price, Director of Work Centers
Marvinia Hunter, Curriculum Development Coordinator

November 1970

Garfield High School
Seattle Public Schools

Table IIIb

GARFIELD HIGH SCHOOL SCHEDULE OF CLASSES

CAMPUS "B" March 1971

Teacher	1st 8:00 - 9:25	2nd 9:35 - 10 55	3rd 11:40 - 1:00	4th 1:10 - 2:30
CAREER OPPORTUNITIES PROGRAM				
ADAMS				FEAST L.A./140
Michael				
BURNSIDE				
Otha	Draftsman/10			
DANIELS	Cosmetology I/3	Cosmetology I/3		
Jesse			Cosmetology II/3	Cosmetology II/3
FRANCIS				
Patrick	Dry Cleaning/133	Dry Cleaning/133		
GARRY				Barbering/3
Alberta				
HUEY				
Charles		Elec.Worker/7B		
JACKSON			FEAST-Bus.Mgt/140	
Robbie				
JONES				Slsp./309 "A"
Ray				
LOVING	Nurse Aide/106	Nurse Aide/106		
Delores				
PEAKES *	FEAST/140	FEAST/140		
Bonnie				
RICH,				
Richard	Life Sci./115	Life Sci./115		
SHIGAKI		Cloth.Const./131	Cloth.Const./131	
Aimee				
SLADE	Carpentry/5	Carpentry/5		
Isaac	Carpentry/5	Carpentry/5		
HANSEN				
Ken			Serv.Stat./4	Serv.Stat./4
TENPAS *				
/WILLIAMS	Child Care/130	Child Care/130		

All classes at Campus "B" except Salesperson which is at "A" COP offices are at Campus "B"; Life Sciences office 117, Campus "B"

COP Staff: Helene Schuller, Education Specialist, Coordinator
Milton V. Price, Director of Work Centers
Marvinia Hunter, Curriculum Development Coordinator
Bill Fotheringham, Financial Officer
Helen Burton, Work Experience Coordinator; Judy Town, Specialist
Bob Baird, Counselor
Chardell Kern, Secretary

*Lead instructors in unit

Table IIIc

GARFIELD HIGH SCHOOL SCHEDULE OF CLASSES

CAMPUS "B" September 1971

Teacher	8:00 1st 9:20	9:30 2nd 10:45	11:55 3rd 1:10	1:20 4th 2:35
CAREER OPPORTUNITIES PROGRAM				
BELL,				Welding/6
Henry				
BURNSIDE,				Const.Tech./10
Otha			Const.Tech./10	
DANIELS,	Cosmetology I/3	Cosmetology I/3	Cosmetology II/3	Cosmetology II/3
Jesse			Cosmetology I/3	Cosmetology I/3
HANSEN,			Automotive Services/Service Station	
Ken			Automotive Services/Service Station	
HARDING,	Drafting/10			
Keith				
HOLLINGSWORTH,				
Raft				Elect. Wkr./7A
HOPF,	Career Lab/122	Career Lab/125		
William	Career Lab/115			
JACKSON,			FEAST B.Arith/130	
Robbie			FEAST B.Arith/130	
JONES,				
Ray				Retailing/309"A"
KAUFFMAN,	Radio-TV/106	Radio-TV/106		
Mark				
LOCKRIDGE,				
Albert	Dry Clng./133	Dry Clng./133		
LOVING,				
Delores	NurseAide/106	NurseAide/106		
PEAKES,		FEAST/130	FEAST/130	
Bonnie		FEAST/130	FEAST/130	
RICH,	LifeScience/115	Life Science/115		
Dick				
SHIGAKI,		Swg. for Prft/131	Swg. for Prft/131	
Aimee				
TENPAS B./	Child Dev./137	Child Dev./137		
WILLIAMS J.	Child Dev./137	Child Dev./137		

All classes at Campus "B" except Retailing which is at "A"; C.O.P. offices are at Campus "B".

C.O.P. Staff: Louis Wildman, Curriculum Coordinator
Milton Price, Director of Work Centers
Helene Schuller, Education Specialist
Bill Fotheringham, Financial Officer
Helen Burton, Work Experience Coordinator; Judy Town, Specialist
William Hopf & Sandy Fujita, Counselors
Chardell Kern & Josephine Dinish, Secretaries

Table IV - Student Enrollment, 1970-71 (Sept. - May)

Career Area	Total Enrollment First Semester 1970-71	# Passing	# With-drawing	# Receiving Unsatis-factory Grades	# con-tinuing Second Semester	MAY OFFICIAL COUNT (May 8, 1971)
Barbering	19	14	5	0	5	21
Child Day Care	--	--	-	-	-	37
Cosmetology	44	44	0	0	26	44
Clothing Construction	32	26	4	2	24	38
Construction Technology:						
Carpentry	34	32	-	2	16	28
Drafting	5	5	-	-	--	9
Electrical Wkr.	19	10	9	-	4	10
Sheet Metal	3	3	-	-	--	(incorporated into Carpentry)
Dry Cleaning	18	16	-	2	6	22
FEAST (Foods Lab)	31	31	-	-	6	16
FEAST, L.A.	11	11	-	-	3	8
FEAST, Bus.Mgt.	8	7	-	1	3	8
Life Science Training:						
Bio: Lab Asst.	48	44	-	4	12	16
Nurses Aide	34	24	-	10	16	28
Salesperson	9	9	-	-	2	18
Service Stn/ Auto Services	--	--	-	-	--	14
TOTAL	315	276	18	21	123	317

Table V

CAREER OPPORTUNITY PROGRAM

Student Enrollment in October, 1971, and 1972 Projection

Career Area (work centers)	Official Count 10/5/71	Sections*	Fall, 1971 Projected Personnel, Space, Equipment	Sections	Fall, 1972 Potential Personnel, Space, Equipment
Biology III-IV: Lab Assistantship	14	1D	40	1D	40
Career Lab Workshop (Ninth Grade)	35	3S	60	3S	60
Child Development	18	2D	80	2D	80
Construction Tech. (Carpentry)	11	2S	40	1D	40
Cosmetology I	76	2D	80	2D	60
Cosmetology II	12	1D	40	1D	40
Drafting	14	1S	20	1D	20
Dry Cleaning	42	1D	40	1D	40
Electrical Worker	20	1S	20	1D	20
FEAST, Business Arithmetic	31	2S	48	2S	48
FEAST, Foods Lab	50	2D	96	2D	96
Nurses Aide/Orderly	22	1D	40	1D	40
Radio/TV	10	1D	20	1D	20
Retailing	14	1S	24	1S	24
Service Station/ Auto Mechanics	56	3D	120	3D	120
Sewing for Profit	30	1D	40	1D	40
Welding	7	1S	10	1D	10
Totals	462	41	818	44	798

*D - double period block, students counted per single period
S - Single period

3.11 Placement: to provide youth graduating or nearing completion of their occupational skills programs with sufficient job skills and information to make meaningful and informed occupational choices, or for entering advanced occupational training.

Persons responsible for providing students with the information:

Work Experience unit
career guidance counselors
instructors
school counselors
Joint Apprenticeship council, and labor unions
former student feedback

Persons responsible for placement:

Work Experience unit

Types of placement:

Parttime during school;
Full time during summer;
Full time placement in job following graduation or completion of skill training in Career Opportunity Program;
Full time placement into apprenticeship training program;
Full time placement into community college program to follow through on advancing occupational skill;
Placement in conjunction with course skill building--work station integral part of course training;
Placement independent of course work.

Persons responsible for collecting information and having input into Work Experience unit regarding job development and formation of a work station:

Instructors and C.O.P. staff
Work Experience unit
career guidance counselors
advisory committee members

Expected outcomes:

a.) Industry and agencies will call the occupational skills program (COP) Work Experience unit for potential employees in advertising for workers of high school age or graduating;
Industry and agencies will cooperate with the C.O.P. Work Experience unit in developing job stations for parttime or full time youth who are employable and/or need work experience.

3.111 Work Experience Component

The Work Experience Unit of Garfield High School was started in 1968 as a needed and necessary service to Garfield students in the area of the world of work and job experience. A course in Career Development for students as well as a Job Lab course was initiated at that time. Further development put these same elements into the Career Opportunity Program and into Title VIII. One service which was carried throughout was job development and placement of students who needed the job experience on jobs in the community and the Greater Seattle area. For the most part the job station was held for any student who needed the experience and students were rotated through a job station once it was secured and worked out. This gave to the unit a job outlet from year to year, and when students moved out of the job, another Garfield student was placed in that position. The Neighborhood Youth Corp personnel work cooperatively with this unit in certifying students eligibility for Neighborhood Youth Corp.

The Work Experience Program description is given in more detail in the handout form - Work Experience Campus B.

Our Career Opportunity Guidance Counselor throughout the year, 1970-71, worked closely with the Work Experience Coordinator in developing forms and a demographic file maintained in the Work Experience Unit on all students enrolled in the Career Opportunity Program. Forms included: Garfield Work Experience Program - Job Application, Baird Form #1 - Information and Interest Battery Questionnaire, Baird Form #2 - Career Opportunity Program Senior Follow-Up Sheet, and a second Interest Battery Sheet - Baird Form #3.

The Career Opportunity Program Guidance Counselor met with all Career Opportunity Program students in their classroom setting and discussed Careers generally and focused all the students attention as a group on filling in the form. The purpose of Baird Form #1 Information and Interest Battery Questionnaire was to develop a workable form which gave us information of worth about the student, and to focus his attention on a career choice and future training and courses of study as follow through. This information which the student filled in was then copied on a follow-up sheet. Special emphasis this past year was on needs of graduating Seniors. Both the Career Opportunity Program Guidance Counselor and the Special Counselor for Work Experience worked with these forms, which were then turned over to the Work Experience Coordinator for follow through. A job application form was then made out by the student in conference. A Garfield Work Experience Program - Job Application form became part of the demographic file. He was also given the general handout on the services of the Work Experience Unit at that time. This information is part of each instructor's handbook, also. Students were then counseled, sent out on job interviews and generally followed through. When a student is hired another document, a card, is filled in and this becomes part of his demographic file.

A second follow-up card is used twice, after five weeks on the job and at the end of semester for a grade. The Work Experience job is considered an elective subject for which grades and credit is given as this becomes part of the student's regular record and transcript of school courses. From time to time the Work Experience Unit is called upon to become part of the resources in the classroom activities. Students in the Construction Technology classes were engaged in paid after school work-study to finish construction of the house project. The in-class and after school activity were integrated learning experiences for the students. Another class which used the work-study plan and the same type of learning experience was the Service Station Attendant. Students continued the work-study in after school activities. Most of the students put in an average of 15-20 hours per week for approximately a three-month period. In class activity was given regular credit and after school work-study was given Work Experience elective credit.

The Career Opportunity Program Guidance Counselor and the Work Experience Unit work cooperatively on the following:

1. Follow up on Seniors in Career Opportunity Program, including placement on jobs
2. Development of working documents which are useful and needed for informational purposes
3. Support in classroom activity - information and guidance, groups or individually
4. Job development, job outlook
5. General placement: part-time, Summer, full-time following June diploma.

b.) To what extent do industry and agencies call the Work Experience unit when they need youthful workers?
To what extent do industry and agencies cooperate with Work Experience unit in developing job stations for parttime or full time youth?

a.) All students at the high school will apply at the Work Experience unit office and be known to them as a part of their demographic files.
b.) To what extent do high school youth apply at the Work Experience unit office for parttime or full time jobs?
To what extent do C.O.P. instructors and guidance counselors refer students to the Work Experience unit for placement and follow through?
To what extent is a follow through made at the end of one year, two years? three years? by the Work Experience unit?

a.) Placements, and follow through, of youths graduating from C.O.P. occupational skills program are made by the Work Experience unit.
b.) To what extent are placements of youth graduating from C.O.P. courses made?
To what extent is a follow through made? One year, two years, three years? (Numbers/graduates/time) rate?
To what extent are graduates placed in occupations related to their occupational skills training?

3.12 Evaluation: to determine the effectiveness of the functions in achieving their stated expected outcomes (total objectives of the program).

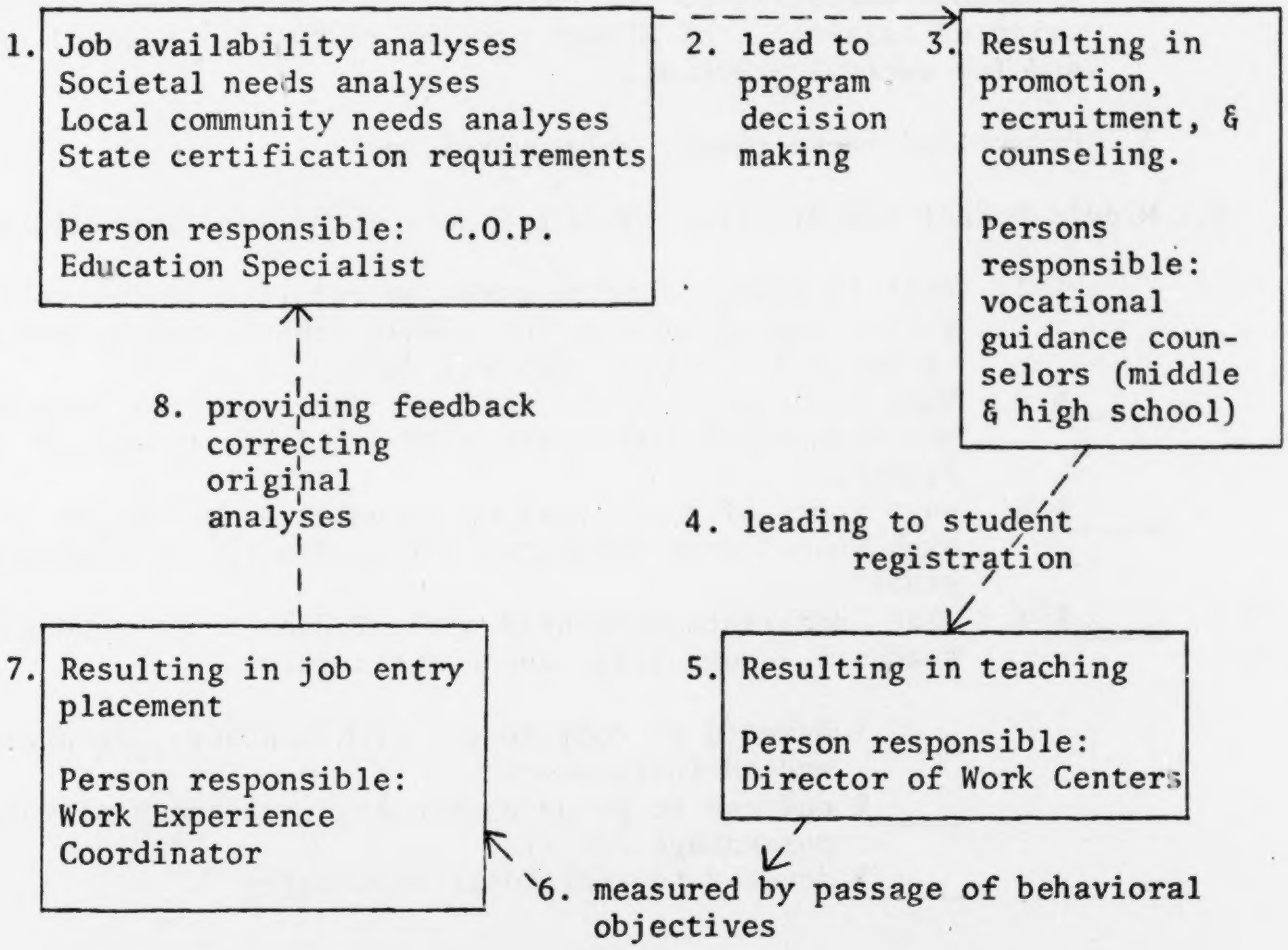
a.) The focal evaluative tool is the student - the product - and the performance level which he achieves. This will be measured by answering the questions:
b.) Do the skills which the student receives meet the demand of the job market in the occupational area?
Is our product able to hold down a job?
To what extent do students follow through in seeking additional training in the area of skill development in which they were trained in a C.O.P. program in high school?

Types of Evaluations:

1.) In house--continuous
2.) Model Cities--progress reports monthly and quarterly and Third Party evaluators, including on-site evaluations.

3.) Exemplary--quarterly, interim reports of progress, on-site evaluation, and Third Party evaluators.
4.) School district--review of proposals, on-site visits
5.) State Vocational Education and Coordinating Council for Vocational Education--approval of proposals, consultation, review of plans, on-site visitations.

Systematically, the Career Opportunity Program looks likes this:


1. Job availability analyses
Societal needs analyses
Local community needs analyses
State certification requirements
Person responsible: C.O.P. Education Specialist
2. lead to program decision making
3. Resulting in promotion, recruitment, & counseling.
Persons responsible: vocational guidance counselors (middle & high school)
4. leading to student registration
5. Resulting in teaching
Person responsible: Director of Work Centers
6. measured by passage of behavioral objectives
7. Resulting in job entry placement
Person responsible: Work Experience Coordinator
8. providing feedback correcting original analyses

A simplified version of the functions of the vocational education program is shown in the above chart. This program analysis is used for evaluation purposes of the Career Opportunity Program with role responsibilities as indicated. Evaluations are currently being carried out by Model Cities evaluators (annually), a Third-Pary Contract evaluator exemplary (annually), and in-house evaluations (continual).

Chart D Career Opportunity Program System

4.0 Evaluation is appropriate at each point:

1. A log will be kept listing major (a) job availability, (b) societal needs, and (c) local community needs analyses consulted or undertaken. The log willinclude membership, minutes, and recommendations of advisory committees. The log will also state (d) the certification status of each vocational program.

2. The cost of each program should be determined per student per semester. In house costs should be analyzed, providing a percentage breakdown according to the following four categories: (a) program-oriented salaries, (b) direct program costs, (c) general overhead, and (c) capital expenses.

3. Promotion, recruitment, and counseling.

4.1 Middle School Coordination (Middle School Counselor Time Allocation)

_____% 1. What learning activity packages relating to the work-a-day world, appropriate at the middle school level, were written or revised? (State name and date)
_____% 2. What opportunities to visit and hear speakers from business and industrial sites were made available to middle school students?
_____% 3. What tours of the Career Opportunities facilities at Garfield High School were conducted for middle school students or staff?
_____% 4. What conference were held with middle school students, teachers, counselors, and administrators.

    _____% devoted to conferences with teachers, counselors, and administrators
    _____% devoted to group counseling (breakdown of total percentage for 4)
    _____% devoted to individual counseling

_____% 5. Did any other promotion relating to the middle school occur?

4.2 High School Coordination

1. What group instruction was provided to students relating to the world of work and employment preparation? (Here follows a grid with students listed across the top and behavioral objectives for the Career Lab Workshop (Ninth Grade) listed down the right-hand side. The teacher checks which behavioral objectives students have completed as of mid-semester and at the end of the semester.)

2. What significant individual vocational counseling activities occurred? (Compiled from the High School Vocational Counselor's daily log.)

3. What business and industrial resources (speakers, tours) were utilized?

4. What in-service training with faculty and staff took place?

5. In what promotional activities did you participate?

   State any other promotional activities that were conducted by the Career Opportunity Program staff relating to program promotion and recruitment.

4., 5., 6. Registration and teaching will be measured by passage of behavioral objectives recorded on a grid at mid and at the end of the semester. (Teachers also supply sex and ethnic origin: black, white, other)

7. Job entry placement: How many students were provided parttime work experience for x number of hours per day (full time, summer 12 weeks)? At what level were they performing: superior, above average, average, below average?

   A name placement file (demographic) will be kept for all students completing Career Opportunity programs. (See the following sheets for information kept in that file.)

4.3 Third Party Evaluation

On June 14, 1971, a contract was let between Seattle Public Schools and University Information Systems (Ulysses Rowell, Jr., Senior Party) to evaluate the first year exemplary program, December 15, 1970, through December 14, 1971. A copy of this contract is enclosed in the appendix.

TO: C.O.P. Instructors November 3, 1971

FROM: Dr. Louis Wildman
Curriculum Coordinator

Dear Colleagues:

For counseling purposes and educational accountability, specifically in reference to the contractual terms of two large federal grants to Garfield High School, it will be necessary that all mathematics, science, language arts, industrial arts, and career opportunities teachers complete a grid, detailing as of mid-semester (November 3, 1971) whether or not each student within their classes has fulfilled the minimal behavioral objectives. (See the attached example.) These reports will be due in my office on November 12; future reports will be due at the end of this semester, at mid-spring semester and at the end of the school year.

Given Garfield's school-wide use of behavioral criteria, this should simply involve transference of records from grade book to this grid. Nevertheless, I know this represents some work on the part of busy faculty members. Therefore, some secretarial help will be available for this purpose. Those wishing this help should show me their records and I will make the appropriate arrangements.

Behavioral objectives should be stated as in the book Prerequisites and Behavioral Objectives for Courses Taught at Garfield High School unless other behavioral objectives have been written which (a) identify the desired behavior, (b) set a minimal passing impartial public standard, and (c) specify or imply the conditions under which the desired behavior can be expected to occur.

I will be available to answer questions in my office at Garfield "B" or by phone (587-3483, 3484).

Sincerely,

Louis Wildman

Dr. Louis Wildman

LWck

Chart E

Checklist for Behavioral Objectives

EXAMPLE:

____
(date)

Course:_____________________ Teacher:_______________

	Ansom, Peter/M/B	Butterfield, John/M/O	Carter, Joel/M/B	Elliot, Jeremiah/M/B	Frank, Barbara/F/W
1.*					
2.					
3.					
4.					

---------Student names/sex/race

(A check indicates that student has fulfilled minimum behavioral objectives.)

* Behavioral objectives listed on another page, referred to here simply by number - see appropriate listings of behavioral objectives for course in appendix.

Chart F

STUDENT QUALIFICATION FORM - GARFIELD HIGH SCHOOL
CAREER OPPORTUNITY PROGRAM

Student's Name Address City Zip Phone No.

Age Birthdate Social Security No. Graduation Date

Vocational Objective

Vocational Certificates

Instructor's Recommendations

Additional Training

EMPLOYMENT RECORD

Full Time	Part Time	Organization	Job Title	Supervisor	Start Date	Finish Date

Course Transcript Attached

COP Placement Form 1-11/71

5.0 OUTPUT MEASURES	QTR. ENDING 3/31/70		QTR. ENDING 6/30/70		QTR. ENDING 9/30/70		QTR. ENDING 12/31/70		QTR. ENDING 3/31/71		QTR. ENDING 6/30/71		QTR. ENDING 9/30/71	
	PROJ.	ACT.	PROJ.	ACT.	PROJ.	ACT.	PROJ.	ACT.	PROJ.	ACT.	PROJ.	ACT.	PROJ.	ACT.
1. Establishment of instructional work centers							14	12	14	14	14	13	16+	
2. Total # capacity for students in work centers							345	315	415	317	415	317		
3. Complete staff							20	20	29	28	29	29		
4. Satisfactory semester grades--students									297	276	317			
5. Students continuing in work centers 2nd semester							315	297	297	123	317	317		
6. Complete course curriculum development by consultants--all parts											14	14		

COMMENTS : 1. By 12/31/70 had established 12 of 14 occupational skills work centers: (1)Barbering, (2)Cosmetology, (3)Clothing Construction, (4)Construction Technology--Carpentry, Drafting, Electrical Wkr., Sheet Metal, (8)Dry Cleaning (not equipped), (9) FEAST (not equipped), (10)Life Sciences, Biology III-IV: Lab Assistantship, (11)Nursing Aide/Orderly, (12)Salesperson, (13) Child Day Care, (14)Service Station/Automotive Services. By 6/1/71 13 of 14 of the above were fully equipped and Dry Cleaning in the process. 2. Total capacity for number students in each work center dependent upon teacher/pupil ratio and capacity of each center. Also there is a limited number of classes in this phase of the program, with possible increases in number of section of classes held in each work center. In most cases this would mean multiplying expenses for each class section held, above the initial class. 3. Complete staff - the beginning of the second semester meant that we needed additional staff to man the two work centers (Child Day Care and Service Station Automotive Services). The work experience unit also added a specialist to the staff. A STEP teacher aide was added to the program working in FEAST and Service Station alternate days. The Garfield High School schedule of class table (enclosed earlier in this report) gives a complete listing of all personnel in the unit. 4. Student grades: a complete breakdown of enrollment and student grades is given in th following table: Student Enrollment for 1970-71 (September through June). 5. Students continuing are shown also in the table

5.0 OUTPUT MEASURES	QTR. ENDING 3/31/70		QTR. ENDING 6/30/70		QTR. ENDING 9/30/70		QTR. ENDING 12/31/70		QTR. ENDING 3/31/71		QTR. ENDING 6/30/71		QTR. ENDING 9/30/71	
	PROJ.	ACT.	PROJ.	ACT.	PROJ.	ACT.	PROJ.	ACT.	PROJ.	ACT.	PROJ.	ACT.	PROJ.	ACT.
7. Establishment of technical and advisory groups							14	14	14	14	16	10		

COMMENTS: 6. Completed course curriculum on each course, including behavioral objectives, task listing and performance criteria will be documented by the end of the school year. 7. Advisory committees were established before September 1, 1970, for each of the career areas and job clusters. A complete listing of these committees is given in the appendix. Every advisory committee is functional and has met at least twice since formation. The chairmen of each advisory committee or a representative forms another group, a subcommittee which has also met.

5.0 OUTPUT MEASURES	QTR. ENDING 3/31/70		QTR. ENDING 6/30/70		QTR. ENDING 9/30/70		QTR. ENDING 12/31/70		QTR. ENDING 3/31/71		QTR. ENDING 6/30/71		QTR. ENDING 9/30/71	
	PROJ.	ACT.	PROJ.	ACT.	PROJ.	ACT.	PROJ.	ACT.	PROJ.	ACT.	PROJ.	ACT.	PROJ.	ACT.
1. Establishment of Instructional Work Centers							14	12	14	13	14	13	16	14
2. Total # Capacity for students in Work Centers							345	315	415	317	415	317	475	462
3. Complete Staff							20	20	29	28	29	29	28	28
4. Satisfactory semester grades--students									297	276	317	282	430	
5. Complete course curriculum development by consultants											14	14	16	14
6. Establishment of technical and advisory groups							14	14	14	14	16	14	16	16

COMMENTS: (1) By 12/31/70, 14 occupational skill work centers had been projected: 1.Barbering; 2.Cosmetology; 3.Clothing Construction, 4.Construction Technology--Carpentry, Drafting, Electrical Worker, Sheet Metal; 8.Dry Cleaning; 9.FEAST; 10.Biology III-IV:Lab Assistantship; 11.Nurses Aide/Orderly; 12.Salesperson, 13.Child Day Care; 14.Service Station. All were in operation with the exception of Dry Cleaning and FEAST. By 3/31/71, 13 of the 14 were in operation with the equipping of the FEAST kitchen. The Dry Cleaning equipment had been installed but was not yet operational. By 9/30/71, 2 more work centers had been projected bringing the total to 16 with the addition of welding and Radio/TV to the program. The Radio/TV work center was completed bringing the total of 14 work centers actually operational. (2) Total capacity for number of students in each work center is dependent upon teacher-student ratio and capacity of each center. Also there is a limited number of classes in this phase of the program with possible increase in number of sections of classes held in ea work center. In most cases this would mean multiplying expenses for each class section held above the initial class. (3) There are 16 teachers involved in the Career Opportunity Program; office staff and administration total 5; there are 3 full time employees at the service station, 2 counselors, and 2 employees in Work Experience. (5) See in Appendix the curriculum guide for all areas of C.O.P. with the exception of the two new programs, Radio/TV and Welding. (6) Advisory committees have been established for all career areas and job clusters as of this date (see attached advisory comm. list

6.0

Table VI - Staff Organizational Changes 1970-71

```
                         -----------1970-------------  -------------------1971---------------------
Position in C.O.P.       June Jy Aug Sept Oct Nov Dec  Jan Feb Mar Apr May June Jy Aug Sept Oct Nov
Director of Project      *-----------------------Roland N. Patterson-------------------------*L.Caldwell-

Principal of High School *------------------------Howard E. White----------------------------*(None)-----

Principal of Garfield B  *-----------------------Samuel S. Cameron-----------*L. Caldwell----------------

Curriculum Dev. Coord.                *-----------Marvinia Hunter----------         *--Louis Wildman----

Occ. Skills Consultant   *-H. Schuller-

Education Specialist               *--------------Helene Schuller----------------------------*T. Miller--

C.O.P. Department Head             *--------------Helene Schuller----------------------------*M. Price---

Director of Work Centers              *-------------------------Milton Price-----------------------------

C.O.P. High School
  Counselor                        *----------------------------Robert Baird-------------*Wm. Hopf-------

C.O.P. Middle School
  Counselor                                                                              *S. Fujita------

Work Experience Coord.             *----------------------------Helen Burton-----------------------------

Assistant Curr. Coord.                                                                       *H. Schuller

C.O.P. Accountant                                            *-----------Wm. Fotheringham----------------

C.O.P. Secretary (1st)           *----*----*------*---------------Chardell Kern--------------------------

C.O.P. Secretary (2nd)                                           *--Susan Barrett---*---Myra Bezuk-------
```

Chart G ORGANIZATIONAL CHART FOR GARFIELD HIGH SCHOOL 1970-71

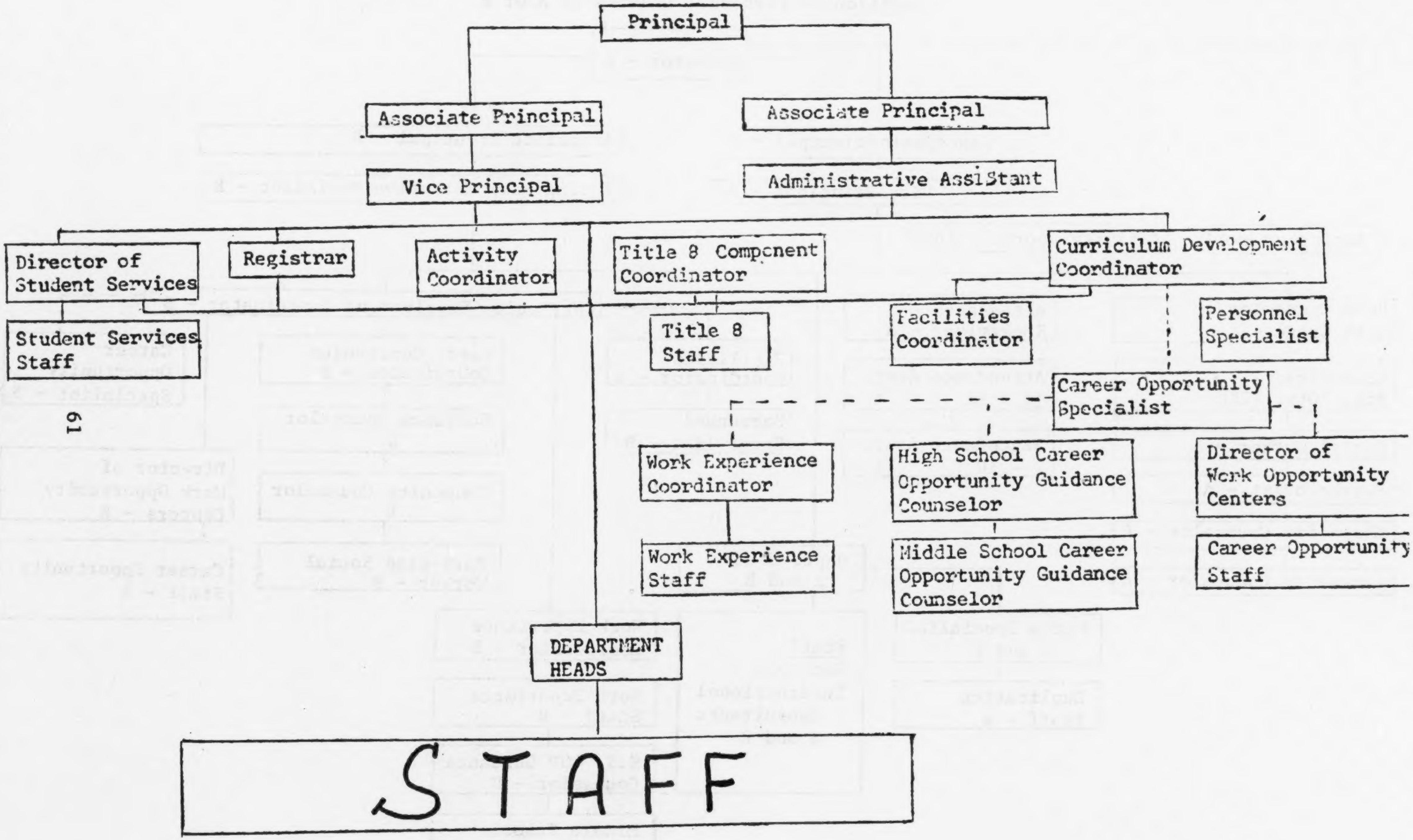
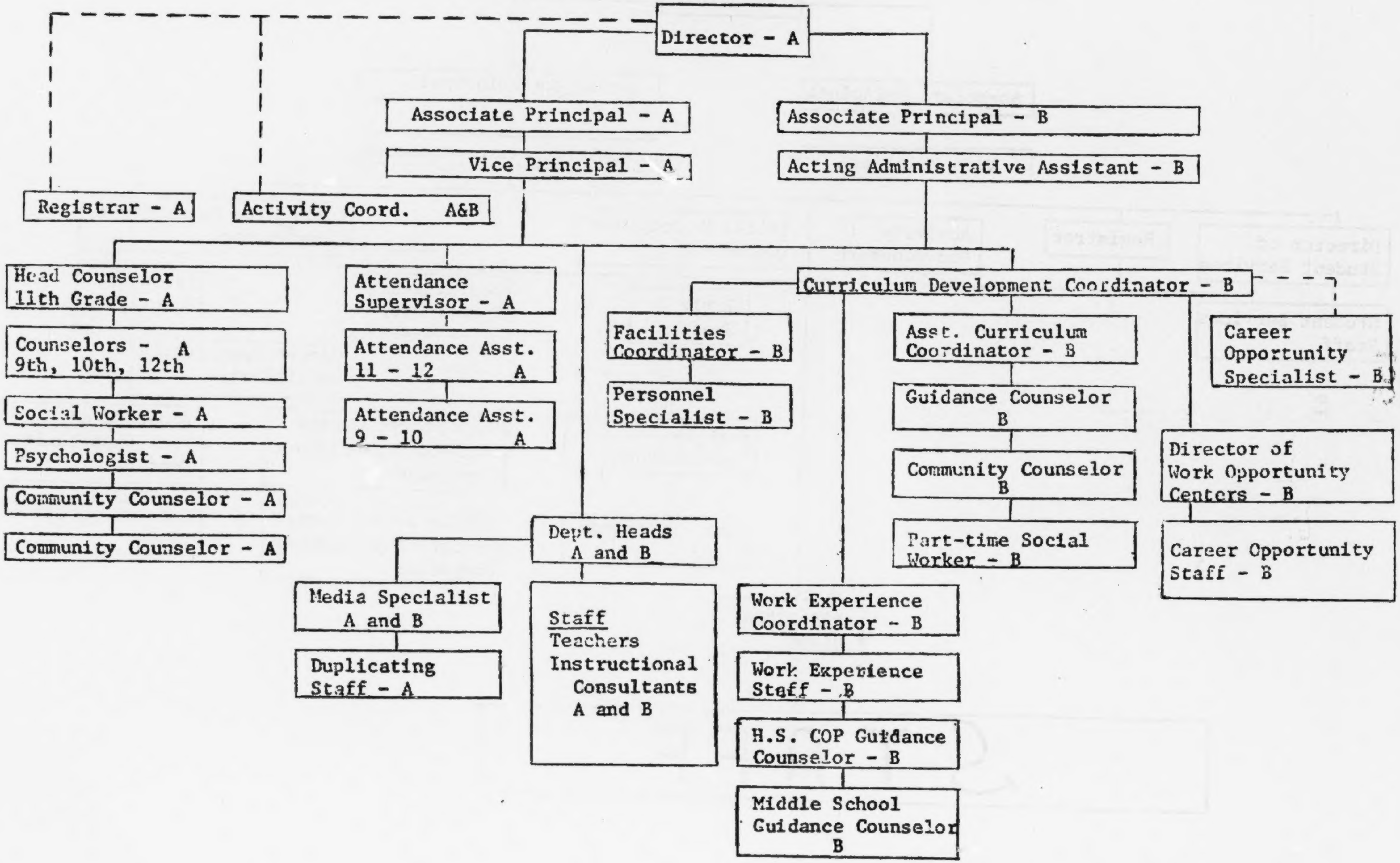

Principal
Associate Principal
Associate Principal
Vice Principal
Administrative Assistant
Director of Student Services
Registrar
Activity Coordinator
Title 8 Component Coordinator
Curriculum Development Coordinator
Student Services Staff
Title 8 Staff
Facilities Coordinator
Personnel Specialist
Career Opportunity Specialist
Work Experience Coordinator
High School Career Opportunity Guidance Counselor
Director of Work Opportunity Centers
Work Experience Staff
Middle School Career Opportunity Guidance Counselor
Career Opportunity Staff
DEPARTMENT HEADS
STAFF

Chart H ORGANIZATIONAL CHART FOR GARFIELD HIGH SCHOOL 1971-1972

Campuses A and B
Location of Personnel Denoted by A or B


Director - A
Associate Principal - A
Vice Principal - A
Associate Principal - B
Acting Administrative Assistant - B
Registrar - A
Activity Coord. A&B
Head Counselor 11th Grade - A
Counselors - A 9th, 10th, 12th
Social Worker - A
Psychologist - A
Community Counselor - A
Community Counselor - A
Attendance Supervisor - A
Attendance Asst. 11 - 12 A
Attendance Asst. 9 - 10 A
Dept. Heads A and B
Media Specialist A and B
Duplicating Staff - A
Staff
Teachers
Instructional Consultants
A and B
Curriculum Development Coordinator - B
Facilities Coordinator - B
Personnel Specialist - B
Asst. Curriculum Coordinator - B
Guidance Counselor B
Community Counselor B
Part-time Social Worker - B
Career Opportunity Specialist - B
Director of Work Opportunity Centers - B
Career Opportunity Staff - B
Work Experience Coordinator - B
Work Experience Staff - B
H.S. COP Guidance Counselor - B
Middle School Guidance Counselor B

7.0 A Statement of the School District's long term goals in the area of Career Education.

A. Need and Statement of the Problem:

The central purpose of education--to prepare the young to accept the reality of constructive pathways to adulthood, to help them engage these pathways successfully, and to assist them in finding personal relevance in the life options available to them--are not being effectively accomplished for large numbers of youth in the Seattle Public Schools system. The day in which academic preparation needed to be the sole end product of the school system has long ago passed; yet schools are still operating on that basis, with learning for the world of work occurring on a piecemeal and fragmented basis.

Much evidence indicates that there is a need for career education at an early age. This education must begin at the elementary school level in order to acquaint students with the variety of occupations employers have to offer, the necessary skills required for each occupation, and the compensations that training and a job have to offer.

B. Seattle School District Goals or Objectives:

The Seattle School District policy is that career education shall be an integral part of the K-12 curriculum. This policy has been translated into a Career Education Program that is designed and has been implemented to carry out the following goals:

1. Explore and assess personal attitudes, aptitudes, attributes, and interests.
2. Examine the concepts of work and work roles and the multiple occupational possibilities.
3. Develop attitudes, knowledge and skills needed for effective employment or continuing education.

C. General Program or Approaches:

An effective career education program will assist in meeting the needs of all youth. In the elementary grades they will be made more aware of the "World of Work"; in the middle grades they are provided with greater opportunity to explore occupational clusters that relate to their interests and abilities, and in the final years of their secondary education, they will be able to acquire specific skill training and knowledge that will prepare them with saleable skills or the ability and knowledge necessary to continue post secondary education in an occupational school or college.

7.1 A description of the total Career Education Program at Garfield.

Salesmanship: Emphasis in this course is placed on retail sales. Theoretical and practical instruction is provided in clerical skills, duties of sales persons, the selling process and human relations. Review and practice in mathematics and communications is arranged when necessary. Many full and parttime positions are available to students possessing skills in the field of retailing.

Drafting: Students taking this course learn the basic elements of drafting. The curriculum relates to courses in machine tool operation and electricity due to the need for blueprint in these specialized occupations.

Electrical Work: This area provides instruction in the fundamental principles of electricity for the construction trades. With the expansion of electrical technology, career opportunities exist for technicians in construction and related areas.

Cosmetology: Students receive beauty solon theory and practical methods related to the care of both men and women's hair. The curriculum includes practical cosmetology and the theory of shop management.

Dry Cleaning: Students learn basic skills of dry cleaning procedures and theory, and gain experience in behind-the-counter service. They are instructed in all phases of the operation of a modern dry cleaning plant with units in marking, invoicing, and customer service being handled as part of salesmanship.

Nursing Aide/Orderly: Men and women students are instructed in the knowledge and skills necessary for working as aides or orderlies in laboratories, hospitals, and nursing homes.

Child Care: Instruction is provided in parent training, human and child development and psychology, homemaking, consumer education and nutrition, as well as training as a child care aide.

Carpentry: Carpentry instruction includes training for job-entry skills necessary for entrance into apprenticeship programs or on-the-job training. Basic instruction in tools and materials and assembly of scale cabin-like structures is part of the curriculum.

Service Station: Instruction is provided in driveway sales, lubrication, engine tune-up, brake work, and other repair and maintenance tasks in an actual service station environment. Students receive related instruction in mathematics, sales, accounting, and communications for application to work requirements in actual employment.

Barbering: No longer exists.

Lab Assistant: Students are instructed in the basic skills necessary for working as laboratory assistants in such cooperating laboratories as: METRO Ecology Lab, METRO Water Quality and Sewage Lab, King County Central Blood Bank, and the University of Washington Biochemistry Lab.

Sewing for Profit: Individuals are required to develop techniques in alteration, to construct garments for self and/or clients, to participate in a mass production project, with the use of power sewing machines as used in industry.

FEAST (Commercial Food): Students are instructed in the preparation and serving of foods, food service, and meal management. Students actually run a restaurant, providing them practical experience in selecting, ordering, preparing, and storing foods.

Industrial Arts: Courses in Industrial Arts provide laboratory experiences for youth in the skills and knowledge of industry. Courses are designed to prepare students for pre-apprenticeship or apprenticeship programs metal working, woodworking, and welding.

Automotive Mechanics: Automotive mechanics is a basic course in general automotive fundamentals. Instruction involves the performance of lab assignments involving the use of automotive tools, performing maintenance functions upon engines and vehicles.

Business Education: Business education exists to serve the needs of three primary groups: the young person going on to college with skills primarily in typing and shorthand; the young person seeking employment with skills in secretarial, clerical, accounting, and retailing; and the young person seeking business skills to better handle day-to-day personal problems with skills in business law, typewriting, accounting, and business english.

Home Economics: Courses in Home Economics are concerned with the training, skill and understanding that go into the work of homemaking. The study of the home includes learning how to plan and do the actual work of housekeeping, meal preparation, cleaning, bedmaking, washing, ironing and mending; how to buy wisely all the equipment needed in a home and to use and care for it properly and how to keep the home safe. Students are also introduced to some of the main ideas of home decoration such as the use of color and the arrangement of furniture.

Marine Engines: Students learn the basic fundamentals of two-cycle and four-cycle engines. They learn how to repair typical marine propulsion units.

Radio & TV: This course provides students with an introduction to the public communications industry.

Work Experience: The work experience program offers students the opportunity to receive academic credit for on-the-job work.

Magnet Fine Arts: The goal of the Magnet Program is to serve the artistic needs of each student, especially those entering a professional art, drama, or music career. Staffs in both art and music components are professional specialists in their fields.

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7.2

Period 6/15/70-6/14/71

CODE S-88 DIVISION/DEPARTMENT Secondary - Special Programs 030570

GENERAL FUND - 1600 SERIES - SPECIAL PROJECT FUNCTION CODE 400, M,P,R, SERIES

1601.0 Social Security						4,000
1602.0 State Retirement						2,161
1604.0 Industrial Insurance						
1605.0 District Health Plan						840
TOTAL EMPLOYEE BENEFITS						7,001
SALARIES						
1612.2 Supervisory						12,000
1613.2 Tech & Prof not othse clas						51,400
1613.3 Administrative Assistants						
1613.4 Counseilors						
1613.5 Social Workers						
1613.6 Psychologists						
1613.7 Nurses						
1613.9 Volunteer Prof Personnel						
1614.2 Classroom Teachers						
1615.2 Other Educational Employees						
1615.9 Volun Teach / Oth Educ Vol						
1616.2 Teach & Oth Educ Subs						
1617.2 Sec & Cler & Substitutes						13,200
1619.2 Craft & Non-Ces Employees						
1619.6 Salaries - Custodial						
1619.9 Volun Non-Clas Services						
TOTAL SALARIES						76,600
SUPPLIES AND MATERIALS	)					
1621.2 Supplies - Office	)					
1622.2 " - Instructional	)					
1622.6 " - Custodial	)					
1625.2 8 & 16 mm Motion Pic Film	) *					
1625.3 Film Strip	)					
1625.4 Recordings(tape, disc, etc)	)					
1625.5 Slides & Transparencies	)					
1625.6 Programmed Instruc Material	)					
1625.7 Maps, Charts, Graphs & Glo	)					
1626.2 Welfare (Food-Clothing)						
TOTAL SUPPLIES & MATERIALS						4,000
1631.2 Textbooks						
1633.2 Library Books - Volumes						
1633.3 Library Encyclopedias						
1633.4 Other Printed Library Mat						
1634.2 Library Periodicals						
TOTAL BOOKS						
SERVICES PURCHASED						
1643.6 Utilities						
1646.2 Rental of Equipment						
1647.2 Prof and Pers Services						22,200
1648.2 Direct Chrgs Trans-Inst.						
1948.6 " " " -Custod.						
1649.2 Cont & Oth Servs Purch						
TOTAL SERVICES PURCHASED						22,200

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S-88 (continued)

1651.2 Travel - Local						
1652.2 " - Extended						
1656.2 Transp of Pupils (To Schs)						
1657.2 Field Trips-Tran&Adm Fees						
1658.2 Postage and Telegraph						
1659.2 Telephone & Oth Commun						
TOTAL TRAVEL & COMMUN						
INSUR & OTHER MISC SERVICES						
1662.2 Compensatin Tax						
1664.V Rental of Buildings						
1665.2 Prop Insur Prem & Losses						
1667.2 Liab " " "						
TOTAL INSUR & OTH MISC SERV						
ALTER, REPAIRS & NEW EQUIPMENT						
1674.2 Equipment Repairs						
1674.3 Vehicle Repairs						
1675.2 Moving Portables						
1675.3 " Equipment						
1678.2 Alterations of Buildings						
1679.2 Purchase of Portables						
1679.3 Construction of Buildings						
1682.3 Equip Replac (Incl Instal)						
1682.3 " " Non-Dist Schls						
1686.2 Equip Addtl (Incl Instal)						
1686.3 " " Non-Dist Schls						
TOTAL ALTER, REPS & NEW EQUIP						
1693.V Donated Rentals (Ctr Acct)						
1698.A Ind Chrgs Trans-Oth Funds						
1698.B " " " -btw proj(drócr)						
1699.2 Unallocated Reserve						
TOTAL TRSFRS OF CHRGS & RES						198,601
TOTAL CODE						

*These items could also include equipment which are unknown at this time.

7.3.

Table VII
GARFIELD OCCUPATIONAL SKILLS PROGRAM
1971-72

COMPREHENSIVE BUDGET

		SMCP	SPS	STATE OF WASH.	PROPOSED H.E.W.	TITLE I	TITLE 8
1.	Personnel	$31,681	$139,408		$116,215	$ 7,328	$31,970
2.	Consultants & Contract Services	12,849			12,259	37,994	
3.	Travel	1,205				323	
4.	Space/Remodeling	13,260			10,000		
5.	Consumable Supplies	2,706			10,000	5,000	
6.	Equipment & Furniture	6,889			3,000	15,234	
7.	Work Experience		15,950				50,000
8.	Miscellaneous	3,610			5,000		
	TOTALS	$72,200	$155,358		$156,474	$65,879	$81,970

Total budget for Garfield High School exclusive of special funding is about $1,365,000.

Total budget for Garfield High School from Title VIII is $356,000 including the $50,000 for Work Experience.

7.4 Statement of how the Garfield Program fits into the District's long-term goals:

Substantial progress has been made in coordinating the programs and curriculums of the regular and exemplary occupational programs at Garfield through the combined efforts of the District Occupational Department staff and the administrative staff at Garfield. Specifically, the progress to date includes:

A. Updating and coordinating the use of occupational advisory committees in all occupational programs so as to assure the addition of needed programs and the examination of non-productive programs.

B. Coordinating the Exemplary Instructional Programs with those funded through regular State and local funds. (An example is placing the Family Life and Child Care Programs under the head of the Occupational Home Economics Department.)

C. Developing curriculum guides, and contracts, on all programs so that they all meet the State and District criteria for the operation of approved occupational education programs.

D. One administrator at Garfield has been designated to be in charge of the occupational education program at Garfield, whose responsibility it will be to affect a close coordinated effort with the District staff in the administration and development of the Career Education Program at Garfield.

The Seattle Schools long-term goals include the provision of a comprehensive educational program including occupational education for all high school students. This may have to be done in the form of regional Occupational Skills Centers. The development of Garfield B and its occupational programs is in keeping with the District goals for providing occupational education.

See appendix for details of the Seattle Public Schools Career Education (Plan), 1970-71 and 1971-72.

11/4/71

8.0
APPENDIX

Excerpts from Model Cities Quarterly reports

Independent Study

Work Experience Unit materials

Seattle Public School District Plan for Career Education, K-12, Quality Education

Individualized Learning - A Resource Book by Harold E. Nichols, William J. Schill and Rosemarie McCartin. (Used in Readiness for Fall Workshop, 1971.)

Advisory Committees for Career Opportunities Program 1970-71.

Appendum E and F to Exemplary Project Proposal. Appendem E Provision for Special Training to Graduating Seniors and Potential Dropouts. Appendum F Third Party Evaluation.

Prerequisites and Behavioral Objectives for Courses Taught at Garfield High School, by Garfield Staff. Howard White, Principal. Excerpts of Career Opportunity Program courses of study from above, and from the Career Opportunity Program Supplementary Information, Appendix 8 to above.

Excerpts from Project Quarterly Report (Model Cities) for period September through December, 1970:

I. Activities and/or Services--Significant accomplishments: We feel that changing the curriculum in such a major way as to add the component of occupational skills career areas was a significant accomplishment, especially in view of the fact that only slightly over six month's intense planning and development went into the project (before implementation). Guided by the community, advisory committees, students, labor and management, and teachers, the Career Opportunity Program became a reality in this short time. A copy of the fall semester schedule follows (C.O.P.). Copies of the courses, program descriptions, and objectives are at the end of the report (appendix).

In the planning and development stage we had a major workshop conference (August 1970) with representatives of labor and industry whose input gave us scope and direction. In November, we met with the Occupational Skills Steering Committee (for Seattle School District) and with the Occupational Education Task Force (district personnel) twice.

The response from the members of the individual advisory committees has been heartwarming and helpful, with over 130 persons involved on these committees including students, parents, agencies, labor and management experts, and the community. These persons have met in committees since April, 1970.

II. Goal/Objective Achievements--A. (1) How project and/or certain of its components have made pregress towards the achievement of project objectives: Although this is best described in the narrative under activities for each month, there are one or two statements which can be made here. It is felt that despite the problems of construction and lack of materials at the onset of this program, great strides have been achieved to change the educational thrust here at Garfield. We are now a comprehensive high school with the additional component of the occupational skills development program career opportunity areas. We were able to mount twelve of the career areas anticipated the first semester. Second semester projections will give us another two areas: service station with auto mechanics and child day care (although this area is now in development during this semester). There has been a working objective which has guided us in the stated program objectives and that is to give everyone a marketable skills when they graduate. There has been a special emphasis on counseling and skill development of seniors who will graduate in June, 1971. The course descriptions and brief objectives for each career area is given at the end of this report as well as the copies of the September, October, November, and December monthly reports. The monthly reports summarize completely the progress, as well as give details.

(2) Output measures: (See also monthly reports.) On the following page, the student enrollment by career area for October and November can be found. The difference can be accounted for in normal attrition and a slight drop in enrollment in November in the overall school attendance. Some students after counseling found that they had changed their minds once they had enrolled and were allowed to change registration and dropped the course. This class enrollment then reflected a more consolidated and serious group of young people as a result, so this was good.

Each occupational skill area has made some progress toward the goals which are stated in the course objectives and have moved along towards completion of the course guides (content). In fact, we are very optimistic with the results so far. We feel that the tentative grades which students received at the quarter term are not too significant at this point, and will give those measureable outcomes in the next quarterly report, at semester's end.

B. Significant shortfalls which have impeded such progress--There were two significant shortfalls which have impeded full progress thus far this year: (1) Progress has been made toward the development of occupational skills and theory, despite the lack of readiness particularly at the beginning of the school term of facilities due to unfinished construction and lack of installation of major machinery and work areas. As of December 18, the FEAST facility and the Dry Cleaning work center are incomplete and have not been used by students. Both occupational skill areas have made significant progress in temporary situations, as stated in the monthly reports. (2) The two areas of Nursing Aide and Life Sciences--Biology: Laboratory Assistantship have had changes of instructor-consultants which have given less than permanency and stability to these two areas, particularly in Nursing Aide. We are faced presently, and for the second time, with replacing the Nursing Aide consultant to finish off the semester, and the year. Despite this, the Nursing Aide course remains one of the most popular of the service areas with the students.

C. New direction or approaches which have been undertaken or are under consideration--There are two additional areas for occupational skill development projected for next term, approximately starting in February, 1971. These are Service Station Attendant-Auto Mechanics and Child Day Care. Both of these areas are major projects and will open up new horizons for our students who will be involved. The service station is off campus and will be run as a general service station open to the public and at the same time it will provide a training area for those students who enroll. The projected Child Day Care project will train students, particularly the young students who are parents in a family life education program,

PROJECT QUARTERLY REPORT

Project: Occupational Skills Development Program
Career Opportunity Program
Garfield High School

Covers activity for period: January through March, 1971

Submitted by: Helene E. Schuller, Occupational Skills Specialist,
Career Opportunity Program, Central Region, Seattle
Public Schools

I. ACTIVITIES AND/OR SERVICES

A. Significant accomplishments: The second semester (beginning January 25, 1971) we were able to add two new work centers to our curriculum; namely, the Child Day Care (Youthful Parent Training Center) and the Service Station Automotive Services. These two work center additions are significant and unique accomplishments and ventures for public schools and both will have comprehensive effects on education for young people at Garfield, and in the Model Neighborhood. A copy of the new semester schedule follows. At the end of this report are copies of the new courses, program descriptions, objectives, and outlines for these two occupational skill centers.

B. Unique successes: Out of the 297 students finishing first semester, 276 received satisfactory marks. All of the courses are gaining in popularity because of the methodology and activities employed in carrying out the Career Opportunity Program. The facilities for the most part are nearly fully equipped and this adds to student and instructor satisfaction. In early March we held an open house/guided tour of the occupational skills, Career Opportunity, work centers for Title VIII conferees (approximately 40 participants). A very successful lunch was served by FEAST students to 38 of the conferees (representatives of Title VIII from school districts throughout the nation). The FEAST program also served a lovely lunch to the Central Area School Council members early in March.

C. Responses of participants in project: Motivation of the students has continued, and in fact, has heightened during this quarter. The reasons may be found clearly in the type of program, in accomplishments in skill building and in type of vehicle (such as house project, service station) employed to accomplish the objectives.

D. Relationship with Model Neighborhood: Garfield High School is the only public high school in the Model Neighborhood. It is a four-year, comprehensive school with an enrollment of approximately 1,000 students, most of whom come from the immediate neighborhood.

in an on-campus site day care center. The one major project career area left which is still in the planning and developmental stage is Welding (Machinist). This is being projected for the fall term, 1971. (FEAST, Construction Technology (Carpentry) are implemented, with plans now underway to mount the Service Station Attendant/Auto Mechanics area second semester.)

There are several other directions of concern in the career field spectrum which are now being talked about. One is in the area of data processing and computer techniques and the other is in heavy industry--construction. There is also a need for finding and developing a product to manufacture which will give an economic advantage to the total career opportunity program, one which will give return in a ready market. Several have been suggested (plastic items, clothing items, a component to a machine item).

It is the policy of the Career Opportunity program to remain flexible and open with respect to new career areas and to the changing or phasing out of any skill area which warrants it.

E. Relationship with Local, State, Federal Agencies--Their involvement or reaction to project: We are in the process of planning for a Garfield High School Open House late in April to which we plan to invite the community, parents, advisory committee members, Model Cities staff and the general public. We are very proud of what Model Cities and Seattle Public Schools have been able to accomplish in our program and hope to engender opinions and reactions at that time. We are continuing to work with the individual advisory committees as functional support units in each of the career areas. A complete listing of these committees is shown at the end of this report. We consider that the on-going classes of students in each career area as advisors and as having significant input. In addition to these students, however, several students have come forward requesting that they be on the formal advisory committees.

II. GOAL/OBJECTIVE ACHIEVEMENTS

A. 1) How project and/or certain of its components have made progress towards the achievement of project objectives: Although this is best described in a specific way in the narrative under activities for each month, there are several objectives of the program which have been accomplished and which can be given in a general way in this section. For example, because Model Cities provided supplementary funds and support in gaining needed materials and appropriate staff during this period certain project goals were more easily carried out and the program was enhanced to a higher level of quality which would have been otherwise impossible. To enumerate: (1) We have established 14 career areas and job clusters exemplified in work centers both on and off campus during this school year, all of which provided ample opportunities for students to explore and develop their talents and capabilities and to engage in on-the-job training, (2) teaching and instruction in these career areas and job clusters were primarily designed and are being designed to foster such development in students; that is, which emphasizes updated job skills through courses which objectives are stated behaviorally and with appropriate sequence, (3) we are providing skill building and occupational training during high school years which will concomitantly and significantly increase high school students' and graduates' employabilities, (4) we have established technical and advisory groups composed of community, school, labor and management, and experts to a--help specify student job skills and career areas, b--identify potential job opportunities, and c--develop a program for eliminating racial discrimination in job placement, in each of the career areas. Each one of the chairmen of these advisory groups is part of a special subcommittee as well, and who have advisory input into the career program.

The other objectives have longer range projection and will have to be evaluated in a different way and at future times or years. The working objective of the occupational skills program which has guided us is to give all students an orientation to the world of work and ultimately a marketable skill before they graduate. The special emphasis on counseling and skill development of seniors who will graduate in June, 1971, continues to be of prime importance. Planning for follow through into summer jobs and entry level jobs for seniors has begun, with the work experience unit leading the endeavor. The monthly reports for January, February and March specifically outline the progress towards meeting objectives. These are given at the end of this report.

2) Output measures: A table shown on the following page, Student Enrollment for 1970-71 (September through March), gives measureable output measures as far as the grade evaluation goes, 97.5% successfully completing the first semester. Between November and January 22, 1971, several students withdrew from the program without an evaluation determination.

B. Significant shortfalls which have impeded such progress: There are two significant shortfalls which have impeded full progress during this quarter, one of which continues from the beginning and they are:

Progress has been made toward the development of occupational skills and theory in all areas to a significant degres, except that the FEAST facility work center was recently readied and is now in daily use.

The other area, the Dry Cleaning work center on campus, remains with the heavy equipment just now being installed. This work should be completed within the month of March and the students will then occupay this needed area for the final quarter of the school year.

C. New direction or approaches which have been undertaken or are consideration: It is the policy of the Career Opportunity Program to remain flexible and open with respect to new career areas and to the changing or phasing out of any skill area which no longer meets demands of the labor market or provides a marketable skill. Planning and development is continuing in the area of welding (machinist) with the advisory committee and with the curriculum development coordinator of Garfield High School. Another area which is picking up tempo in planning is the projected early high school years (ninth and tenth grade) laboratory workshop orienting students to the world of work and job clusters within the State of Washington and the immediate Puget Sound area. Both of these efforts are being directed toward the fall term, 1971.

CONSTRAINTS AND PROBLEMS / ACTION TAKEN

As mentioned in monthly reports and in the district report, the planning and development phase was very short before the action phase began. This was at the insistence of the community and the students who demanded a change in education and now. Consequently, the planning, development, and action phases overlapped throughout this whole first year of the program. The result quite naturally meant that equipment, supplies, and staffing had to be brought together rather quickly to invoke a new curriculum for fall, 1970. By second semester all projected work centers were completely equipped except Dry Cleaning, which was a monumental feat for a school district of this size to accomplish. Another constraint mentioned was the lack of counseling services to youngsters selecting courses for registration, particularly for first semester. Six educators including counselors and the Education Specialist spent one full week in conferences with students wishing to register for Occupational Skills - Career Opportunity Classes just prior to the opening of school. We are now through planning and development of procedures, forms, and processes with a counselor in our program able to meet the demands of students for counseling and guidance which enables a student to make a tentative or real career choice. All efforts are being directed by staff to reach students, especially graduating seniors, through counseling procedures both in and out of the classroom at this time. Curriculum is being developed for presentation in the fall of 1971, whereby ninth and tenth graders may select a course in orientation to the world of work and some practical experience in a choice of five out of ten career job clusters. (A one-semester course, Career Laboratory Workshop, an orientation to occupational skills classes, will reach many of the student body this next year and in time reach them all.)

The scheduling of students into occupational skills courses for periods of time each week was solved by approximately 75 minute long classes, with many Career Opportunity Program courses two periods in length. This resulted in a student being in class all morning, or all afternoon, which gave enough time for theory and practical activities. Our school schedule dictates that students are in class five days out of ten, or on alternate days, designated as Purple or White Days. The longer class period compensates for this and encourages skill building and use of laboratory activities because of shorter time involved in setting up and taking down in relation to class time.

Two or three other very important problems are related in the narrative, which must be solved. One, especially related to success of students in the program is the proposal for work-study in the areas of carpentry, service station, and Life Sciences (including Nursing Aide).

INDEPENDENT STUDY PROGRAM

The Independent Study Program at Garfield is based on the premise that an independent study program requires the involvement of both students and faculty. The educational needs of the Garfield Independent Study Program have been set forth as:

1. Each student needs the time to develop his own ideas and approaches to study and learning.
2. Every student needs the opportunity to pursue a project or research a study to the best of his ability.
3. Students must be able to pursue advanced topics at their own rate.
4. The individual student, who wishes to pursue, in depth, a topic of personal interest, needs to be challenged and stimulated to do so without having to be enrolled in a regular class at the same time.
5. Certain students need to improve basic skills; therefore, the school must provide for diagnosing, planning, and remedying individual deficiencies.
6. Students need to determine how self-sufficient, self-directed, responsible and self-reliant they can become.
7. The school must make the best use of both teacher and student time during the school day.
8. Students need to overcome the limitations of the regular class.
9. Students need to plan schedules and take classes without regard to class schedule conflicts.
10. Students need the opportunity to gain added depth, in the same topic or unit under study in the regular class.
11. College-bound students need to be prepared for the growing trend in the use of independent study among colleges.
12. Students need to consult with teachers on learning problems. The teacher, as consultant, must help the student raise and answer his own questions.
13. Students need an opportunity to work and study with professionals and non-professionals in the community.
14. Students need the opportunity to work and gain exposure to the world of work both in or outside his chosen vocation.
15. Students need the opportunity to investigate on their own different careers, thereby helping him to decide on a vocation.

Faculty Responsibilities:

To be successful the Independent Study Program requires a curriculum adapted to independent study. Facilities must also be available for the student to engage in independent study. The curricular design and the establishment of proper facilities are important parts of the faculty responsibility.

Another important area of faculty responsibility is the selection of students who are to be given the privilege of applying for independent study. It is the responsibility of the sponsoring faculty member and any faculty members signing a student's application to ascertain that the student meets the criteria for eligibility as established by the Independent Study Committee.

Application Procedure:

1. A faculty member submits a proposal to his respective Department Head. After the Department Head has reviewed the proposal it is forwarded to the Independent Study Committee for approval. Such a proposal should outline a curricular design which requires the use of independent study.

2. If the proposal referred to in #1 above is approved by the Independent Study Committee, the committee will forward to the teacher, through his Department Head, the number of Independent Study applications the teacher requested.

3. The teacher then distributes the Independent Study applications to the students. A student must be sponsored by a faculty member (classroom teacher)--applications can be obtained in no other way. This faculty member is responsible for this student.

4. The student then must obtain the signatures that are necessary for completion of the application. When all signatures have been obtained, the student turns in the application to the Curriculum Coordinator. At this time a final check is made of the student's eligibility. If a student meets the criteria, the Curriculum Coordinator then signs the application and the student receives his Independent Study card in his first period class.

Determining Independent Study Program Course of Study

1. The teacher and the student must sit down together at a time mutually agreed upon and decide:

   a. What is to be independently studied.
   b. The purpose for the study.
   c. What goals and objectives (behavioral) of the project will be.

2. The teacher, with help from the student, must develop an outline for scope and sequence of the project.

3. Student and teacher must work out a definite approach for:
   a. meeting times
   b. work to be handed in by student
   c. written or oral examinations to be taken, if any
   d. work to be evaluated and returned to the student by the teacher
   e. deadlines

4. Evaluation must be relevant and clearly understood by student and teacher.

5. All requests for independent study must be in writing and receive approval of the Associate Principal (in charge of Curriculum) through the Curriculum Coordinator.

Criteria for Eligibility:

1. Scholarship: Make suitable progress in classes for which he is enrolled.
2. Industry and Responsibility:
   a. Works well during the class period.
   b. Does assignment on time.
   c. Uses initiative in planning for and carrying out assignments.
   d. Attends class regularly.
   e. Return forms, reports, and both library and textbooks when due.
   f. Works without supervision.
3. Attitude:
   a. Understands and accepts authority.
   b. Demonstrates cooperative attitude with students and faculty.
   c. Shows consideration for others' rights and feelings.

Basic Rules and Regulations Governing Students on Independent Study:

1. Independent Study Program (I.S.P.) cards are not transferable.
2. Students must show their I.S.P. card upon the request of any staff member.
3. Students must report to study areas at the beginning of the period and normally plan to spend the entire period in one study area.
4. Students may not leave a study area when there is less than fifteen minutes remaining in the period.
5. Students must respect the various study areas.
6. Students are not to loiter in the halls or go to lockers during class time.

Areas:

1. Library - Campuses "A" and "B" - Students are required to be in the library at the beginning of the period and stay there until completion of the period.

2. Social Studies Resource Center - Located in Room 231, Campus "A" - Students may be requested to show their independent study cards to the teacher's aide in charge of the resource center. The resource center is available all four periods of the day.

3. Math Resource Center - Located in Room 104, Campus "B" - See No. 3.

4. Science Resource Center - Located in Room 114, Campus "B" - See No. 3.

5. Other Study Areas - Laboratories in classrooms are sometimes available to students for special study. Arrangements for this type of study should be made with the teacher in charge. The teacher must be in the laboratories to provide proper supervision.

6. Special visitation to off-campus facilities will be handled as a field trip with parent consent. Consecutive visitations will be handled in the same manner.

7. Student Center - Located in Room 308, Campus "A"; located in Cafeteria, Campus "B".

Procedure for Removal of a Student from Independent Study:

Any faculty member may remove a student from the I.S.P. for infraction of the I.S.P. rules by referring the matter to the Grade Level Administrator.

If a student is removed he may file a written appeal with the Independent Study Committee. The committee in turn will investigate and notify the student in writing of its decision.

Independent Study Committee:

The Independent Study Committee consists of two representatives each from the Instructional Council, the faculty, and the student body. It will also include the Grade Level Administrators, Head Counselor, and the Curriculum Coordinator. The Independent Study Committee acts as an advisory board to the Instructional Council on matters relating to independent study. The members of this committee are recommended by the Instructional Council and appointed by the Director.

GARFIELD HIGH SCHOOL

INDEPENDENT STUDY APPLICATION

To the Applicant:

Complete the form below. Next, print the name of one of each of your teachers and your name in the proper spaces on each of the attached sheets.

SCHEDULE

______________________ Student's Name

______________________ Parent's Signature

Per.	Day	Subject	Room	Teacher
1	A			
2	A			
3	A			
4	A			
1	B			
2	B			
3	B			
4	B			

DO NOT DETACH ANY SLIPS. Turn in completed forms to the Office. There should be no teacher signatures at this time.

INDEPENDENT STUDY RECOMMENDATION

______________________ Teacher's Name

______________________ Period

I, ______________________, am requesting that I be considered for Independent Study. Please sign below to show your ________ Approval

________ Disapproval (Please comment)

______________________ Teacher's Signature

When signed, return to Dr. Wildman, who is located on Campus "B".

Work Experience - Campus B
2101 So. Jackson
Seattle, Washington 98122

Work Experience is a planned educational program located within the school setting to provide the student work experience concurrent with his regular academic schedule. Students are referred to the program by counselors and instructors or may come on their own. After an initial interview with the student, certain objectives are undertaken by the program coordinator.

Introduction to the Demands and Expectations of the World of Work

A. Information related to a specific vocation

B. Employment opportunities

C. Qualifications

D. Personality and attitude requirements

E. Wages and hours

F. Dependability

G. Social Security and Work Permits

H. Explination of school credits granted for work (100-200 work hours = 1/2 credit, over 200 hours = 1 credit)

The student must be regularly employed for a minimum of 12 weeks in the semester. Personal contacts are made to insure job retention.

Work Experience is an elective subject.

H. Burton
Work Experience Coordinator
9/1/71

Work Experience - Campus B

ALL THERE IS TO KNOW ABOUT THE WORK EXPERIENCE PROGRAM AND WHY!

These procedures should be followed for an interview:

1. Come in for an application in the Work Experience office and fill it out in ink only.

2. Return the application immediately and arrange for an interview with the Work Experience Coordinator. Let her know either in person or by calling EA9-7575 if this appointment cannot be met.

3. When assigned to a job interview you will be given an appointment slip.

4. Always be on time for an interview. This means pre-planning transportation procedures. Make sure your personal appearance is suitable.

5. Take the appointment slip to the employer. The following day return to the Work Experience Office or call EA9-7575 to let the Work Experience Coordinator know what happened in the interview.

6. If you are hired you must pick up your Work Experience cards to be signed by the employer or you may need to pick up time sheets.

7. Report to the Work Experience Office at least once a month about your job.

8. If you have problems regarding illness, school activities, relationship problems with your supervisor or co-workers, please consult the Work Experience Coordinator immediately. If you are terminated or need to be terminated contact the Work Experience Coordinator immediately.

Helen Burton	Work Experience Coordinator
Judy Town	Work Experience Counselor

C.O.P. SENIOR FOLLOW-UP SHEET

Name______________________________________Date______________

Address____________________________________Phone_____________

Credits to Date____________________C.O.P. Training____________

Graduation Plans:

___Temp. Employment	___Perm. Employment
___Parttime Employment	___Apprenticeship___________
___Comm. College - Tech. Training	___Armed Forces
___Comm. College - Trans. Program	___Private School (Trng. Prgm.)
___University: Major___________	___Other OJT______________
___Other______________________	

___Student plans to pursue work in area of C.O.P. training.

NEEDS BEFORE GRADUATING

___Credits not currently available___________________________

____

___Credits currently available________________________________

____

___Plans to return to Garfield to pick up credits	___Plans to attend Comm. College to pick up credits
___Plans to take GED	___Does not plan to graduate

___Crystallization of goals	___Personal problems
___Place to live	___Clothes
___Other_________________	___Employment

NEED AT TIME OF GRADUATION

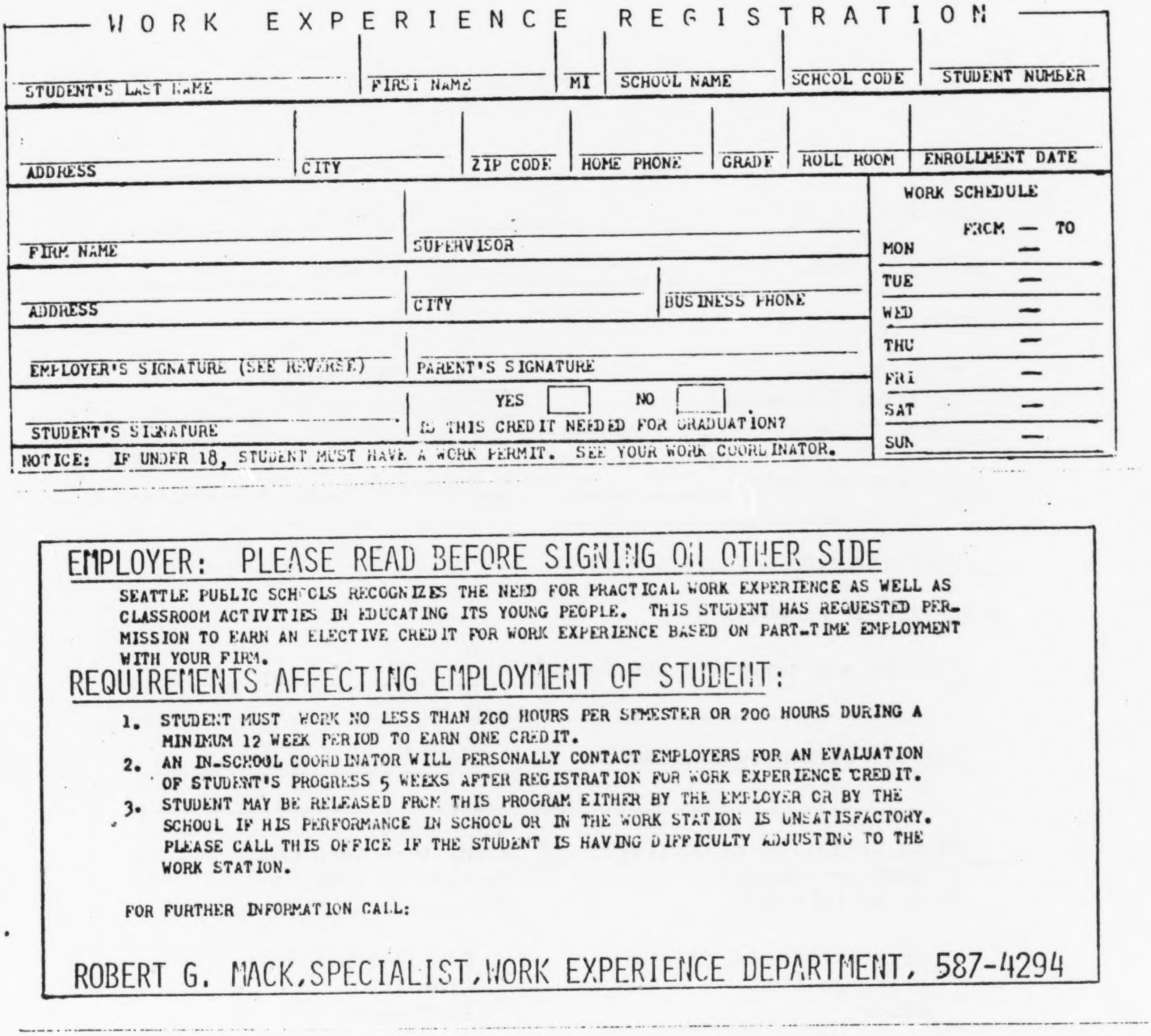
___Implementation of plans   ___Employment

COMMENTS____

____

____

Baird Form #2, COP



WORK EXPERIENCE REGISTRATION

STUDENT'S LAST NAME	FIRST NAME	MI	SCHOOL NAME	SCHOOL CODE	STUDENT NUMBER

ADDRESS	CITY	ZIP CODE	HOME PHONE	GRADE	ROLL ROOM	ENROLLMENT DATE

FIRM NAME

SUPERVISOR

ADDRESS

CITY

BUSINESS PHONE

EMPLOYER'S SIGNATURE (SEE REVERSE)

PARENT'S SIGNATURE

STUDENT'S SIGNATURE

YES ☐ NO ☐

IS THIS CREDIT NEEDED FOR GRADUATION?

NOTICE: IF UNDER 18, STUDENT MUST HAVE A WORK PERMIT. SEE YOUR WORK COORDINATOR.

WORK SCHEDULE

	FROM — TO
MON	—
TUE	—
WED	—
THU	—
FRI	—
SAT	—
SUN	—

EMPLOYER: PLEASE READ BEFORE SIGNING ON OTHER SIDE

SEATTLE PUBLIC SCHOOLS RECOGNIZES THE NEED FOR PRACTICAL WORK EXPERIENCE AS WELL AS CLASSROOM ACTIVITIES IN EDUCATING ITS YOUNG PEOPLE. THIS STUDENT HAS REQUESTED PERMISSION TO EARN AN ELECTIVE CREDIT FOR WORK EXPERIENCE BASED ON PART-TIME EMPLOYMENT WITH YOUR FIRM.

REQUIREMENTS AFFECTING EMPLOYMENT OF STUDENT:

1. STUDENT MUST WORK NO LESS THAN 200 HOURS PER SEMESTER OR 200 HOURS DURING A MINIMUM 12 WEEK PERIOD TO EARN ONE CREDIT.
2. AN IN-SCHOOL COORDINATOR WILL PERSONALLY CONTACT EMPLOYERS FOR AN EVALUATION OF STUDENT'S PROGRESS 5 WEEKS AFTER REGISTRATION FOR WORK EXPERIENCE CREDIT.
3. STUDENT MAY BE RELEASED FROM THIS PROGRAM EITHER BY THE EMPLOYER OR BY THE SCHOOL IF HIS PERFORMANCE IN SCHOOL OR IN THE WORK STATION IS UNSATISFACTORY. PLEASE CALL THIS OFFICE IF THE STUDENT IS HAVING DIFFICULTY ADJUSTING TO THE WORK STATION.

FOR FURTHER INFORMATION CALL:

ROBERT G. MACK, SPECIALIST, WORK EXPERIENCE DEPARTMENT, 587-4294

On-the-job work registration form used by Work Experience Unit, COP

STUDENT'S LAST NAME | FIRST NAME | MIDDLE NAME | SCHOOL NAME

(CIRCLE APPROPRIATE NUMBER)

COOPERATION	4	3	2	1
JUDGEMENT	4	3	2	1
ACCURACY	4	3	2	1
DEPENDABILITY	4	3	2	1
ADAPTABILITY	4	3	2	1

4=SUPERIOR 3=ABOVE AVERAGE
2=AVERAGE 1=BELOW AVERAGE

TOTAL # OF HOURS WORKED: ☐

JOB TITLE

COMMENTS (USE REVERSE IF NEEDED):

FIRM NAME: ____________

SUPERVISOR: ____________

ADDRESS: ____________

PHONE: CITY: ZIP:

SEMESTER | YEAR | MONTH: DAY: YEAR: DATE EMPLOYED

SCHOOL CODE

STUDENT NUMBER

DOT CODE

SCORE

CREDITS

ADDITIONAL COMMENTS:

RETURN ADDRESS

ROBERT G. MACK, Specialist
WORK EXPERIENCE DEPARTMENT
SEATTLE PUBLIC SCHOOLS
2515 BOYLSTON AVE E
SEATTLE, WASHINGTON 98109

After five weeks on the job follow up form, for grade and evaluation used in Work Experience Unit, Career Opportunity Program.

GARFIELD WORK EXPERIENCE PROGRAM

JOB APPLICATION

Name________________________________ Birthdate__________ Age____
(Last) (First) (Middle)

Race______________ Address____________________ Phone______

Sex: Male__ Female__ Year in School: 9__ 10__ 11__ 12__ Zip________

Social Security Number______________

Special Skills You Have:

Typing ( ) WPM ( ) Driver's Licence ( )
Filing ( ) Car ( )
Office Machines ( ) C.O.P.__________
Sales ( )

EMPLOYMENT HISTORY

Most recent job held:

Date__________ Name of Firm______________ Supv.__________

Type of Work____________________________
Was this for Neighborhood Youth Corps or Title VIII?______________
Reason for leaving____

Living with:

Father only ( ) Both parents ( ) Other ( )
Mother only ( ) Guardian ( )

Head of Household____
(Name) (Address) (Phone)

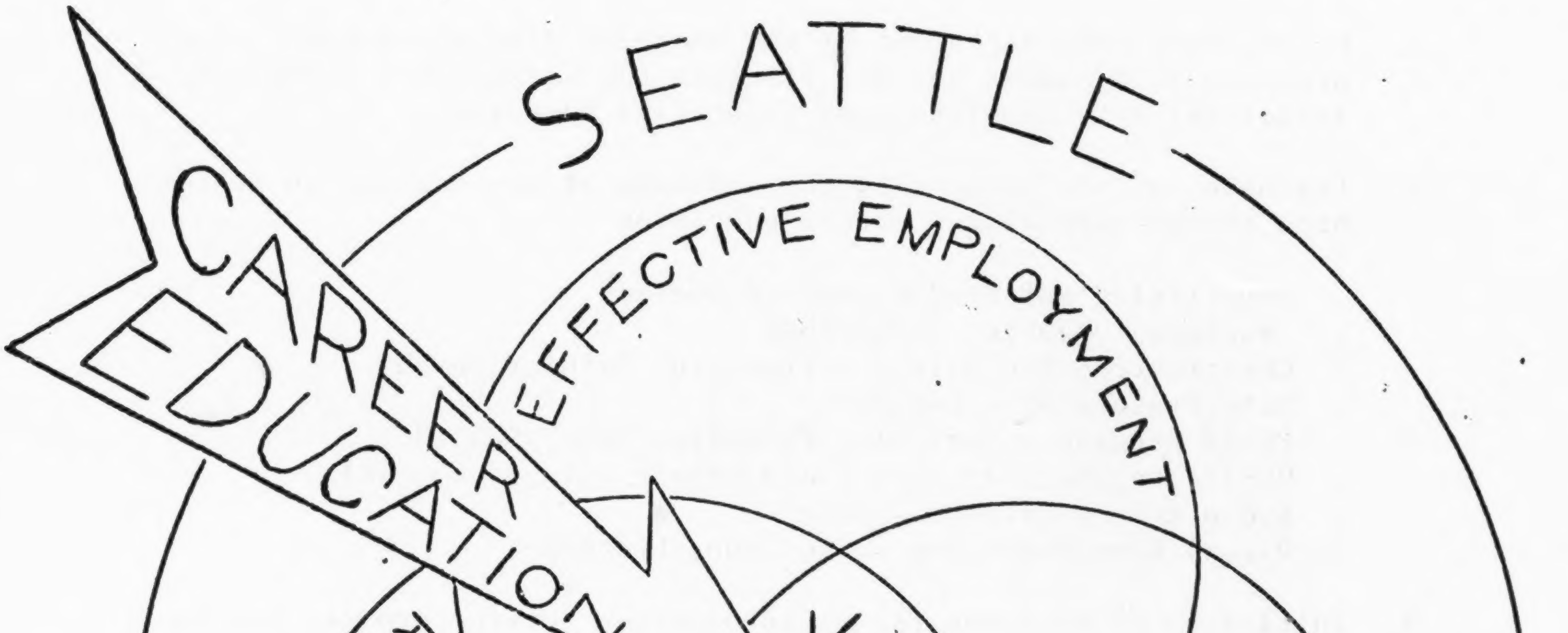
Where Employed__________________ Type of Work______ Income______

How many live in household? Brothers__ Sisters__ Others__

Counselor__________________________

Applicant's Signature__________________ Date__________

QUALITY EDUCATION


SEATTLE
PUBLIC
SCHOOLS
CAREER EDUCATION
EFFECTIVE EMPLOYMENT
RESPONSIBLE CITIZENSHIP
INDIVIDUAL DEVELOPMENT
K
12

FILMED FROM BEST AVAILABLE COPY

CAREER-ORIENTED EDUCATION - 1970-1971 SCHOOL YEAR

On November 18, 1970, the Seattle School Board adopted a policy to make career-oriented education, K - 12, an integral part of the curriculum.

The achievements in the 1970 - 1971 implementation of this program, a result of the combined efforts of all segments of the Seattle School System with leadership, direction, and primary supervision from the Occupational Education Task Force, include the following:

1. Maintenance and enrichment of the on-going discrete subject area programs in Business and Distributive Education, Home Economics, Industrial Arts and Trade and Industrial Education.

2. Expansion of the program by the addition of new courses in senior high school specialized career education -

   - Advertising and Production - Cleveland
   - Business Graphics - Ingraham
   - Construction Technology - Franklin, Rainier Beach
   - Data Processing - Sealth
   - FEAST Program - Garfield, Franklin, Hale, Sealth
   - Marine Engine Maintenance and Repair - Ingraham, Hale
   - Radio Communications - Hale
   - Visual Communications - Hamilton, Lincoln

3. Initiation of an occupational information service project for the procurement, storage, retrieval, and dissemination of occupational information citywide.

4. Expansion of the development of the K - 12 Career-Oriented Education Program at Hughes-Denny-Sealth.

5. Continuation of the operation of the Occupational Education Resource Center, a program designed for students in grade 10, 11, and 12 who have occupational aspirations but whose attitudes and/or basic skills limitations preclude their enrollment in occupational programs or restrict their progress, at Rainier Beach.

6. Expansion of the Work Experience program to include in each high school a work experience staff member to interview and place students on jobs correlated with their skills and classroom experience.

7. Planning for a district-wide public relations program to encourage career-oriented education.

CAREER-ORIENTED EDUCATION - 1971-1972 PROJECTIONS

The projections for career-oriented education in 1971-1972, utilizing the combined efforts of all segments of the Seattle School System under the leadership, direction, and primary supervision of the Occupational Education Task Force, include the following:

1. Maintenance and enrichment of the on-going discrete subject area programs, including the 1970-1971 expansion courses, in Business and Distributive Education, Home Economics, Industrial Arts, and Trade and Industrial Education.

2. Expansion of the program by the addition of new courses in specialized career education -

   - Aerospace - Cleveland
   - Business Education Survey (Business Fundamentals) - Cleveland
   - Business Management - West Seattle
   - Data Processing - Cleveland
   - Expansion of FEAST - West Seattle, Cleveland
   - Home and Family Life - Rainier Beach
   - Light Metals Manufacturing - Ballard, Cleveland, Garfield
   - Office Machine Maintenance - Sealth
   - World of Manufacturing - Madison, Denny
   - Career Opportunity Program (Occupational Skills): Drafting, Marine Engines, Nursing Aide/Orderly, Carpentry (Building Trades) Auto Services/Service Station Attendant - Garfield

3. Continuation of the development of the occupational information service project for the procurement, storage, retrieval, and dissemination of occupational information city-wide.

4. Continuation of the expansion and the development of the K - 12 career-oriented education program at Hughes-Denny-Sealth to the entire Sealth Consortium group.

5. Revision and continuation of the operation of an occupational education resource center, a program designed for students in grades 10, 11, and 12, who have occupational aspirations but whose attitudes and/or basic skills limitations preclude their enrollment in occupational programs or restrict their progress.

6. Continuation of the work experience program as outlined for 1970-1971 and enrichment of it by the addition of one full-time staff person at Rainier Beach and the purchase of additional testing materials.

7. Implementation of a district-wide public relations program to encourage career-oriented education.

ENROLLMENT IN VOCATIONAL COURSES OR PROGRAMS
FIRST SEMESTER -- 1970-71

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	BALLARD		CLEVELAND		FRANKLIN		GARFIELD		HALE		INGRAHAM		LINCOLN		QUEEN ANNE		RAINIER BEACH		ROOSEVELT		SEALTH		WEST SEATT
School Enrollment	1766		957		1646		1231		2142		1795		1683		1781		1015		2188		1799		1735	
CAREER-ORIENTED COURSES																								
Accounting	113		93		60		33		96		116		95		126		39		125		138		[illegible]	
Shorthand	68		60		62		27		77		16		85		36		60		78		55		49	
Office Prac/Machines	45		50		43		65		48		73		62		40		133		145		81		55	
Typing	371		211		336		380		375		430		525		409		224		359		506		352	
Basic Core (Bus Arith Bus Eng, Bus Law, Economics)	87		28		26		34		76		156		44		68		9		122		129		71	
Data Processing					12				17		22				18		7		24		50			
Business Graphics											22													
Business Procedures	5												27								19		19	
Advertising & Prod.			16																					
Dist Ed (Retailing)	18		25		4		10		45		25		25		20		15		21		20		28	
Child Day Care							37										22							
Sewing for Profit							22				12													
FEAST	29				13		34		10										26		28			
Household & Inst Mgm																								
Home Furnishing																								
Machine Operator					10																		17	
Automotive Service																	20							
Vocational Drafting							5								2		27							
Construction Tech.					20		80										23							
Visual Communica.													24											
Radio Communication		[%]		[%]		[%]		[%]	100	[%]		[%]		[%]		[%]		[%]		[%]		[%]		[%]
*Total Course Enroll**	736	41.7	483	50.5	586	35.6	950	51.3	844	39.4	872	48.6	887	52.7	719	40.4	579	57.0	900	41.1	1026	57.0	667	38.4
SCC ADVANCED PLACEMENT VOC. PROGRAM	6	.3	4	.4	8	.5	1	.1	1	.1	10	.6	32	1.9	22	1.2	5	.5	--	---	31	1.7	5	.3
WORK EXP. PROGRAM	107	6.0	48	5.0	88	5.3	81	6.6	84	3.9	126	7.0	113	6.7	120	6.7	48	4.[illegible]	44	2.0	125	6.[illegible]	105	6.1
HOME & FAMILY LIFE	291	16.5	163	17.0	--	---	494	40.1	337	15.7	339	18.9	--	---	--	---	--	---	406	18.6	331	18.4	--	---
	1140	64.5	698	72.9	682	41.4	1207	98.1	1266	59.1	1347	75.1	1032	61.3	861	48.3	630	62.1	1350	61.7	1513	84.0	779	44.8

*Includes Barbering (17); Clothing Constr. (38); Cosmetology (44); Dry Clean. (20); Life Science (94); & Salespersons (10)

BASIC PLAN FOR OCCUPATIONAL EDUCATION

Responsibility of Society

One of the major responsibilities of any society is to provide for each member of its rising generation a dignified, useful, and productive adult role. Correspondingly, one of the major assignments of schools is to help each young person prepare, through full development of his talents, to assume the responsibilities of adult life, and to occupy a meaningful position in the economic, social and civic life of the community.

The Goal of Occupational Education

The goal of occupational education is to make available a continuous program of career learning which is an integrated component of the curriculum and which provides, through articulation and rapport between educational institutions and segments of the greater community, for a smooth transition from full-time schooling to full-time employment, whether that transition be after grade ten or after graduation from high school, trade school, private school, community college, university, or other training institution.

Plan for K-12 Career Preparation

Career preparation involves facets of the total curriculum from kindergarten through the twelfth grade and provides for a smooth and orderly transition from school to employment and/or continued education.

Starting in kindergarten and continuing through the sixth grade, major career emphasis is placed on provision of experiences which will enable youngsters to appraise themselves; to become aware of their abilities, appreciations, and relationships with other people; to recognize that tools allow an extension of themselves; and to learn that they can do some things cooperatively that would be impossible alone. Emphasis during these years is also placed on the development of an appropriate attitude toward work.

During the seventh and eighth grades, for the purpose of discovering interests, students will systematically investigate the forty-thousand different occupations in which people engage. Occupational classifications are to be clustered in terms of "type" and "level" and investigated in terms of the broad needs of tomorrow. It is not advocated that this be accomplished by setting up additional courses, but rather by using various media, time increments, and instructional strategies developed through interdisciplinary planning.

During the ninth grade, with appropriate self-appraisal and interests as background, the students would make another "overview" for the purpose of determining their aptitude in the four broad categories. This would include a greater amount of personal involvement and make it possible for them to choose, on the basis of practical experience, the two clusters in which they show the greatest interest and aptitude.

The tenth grade is to be spent in a somewhat vigorous investigation of the two selected clusters, bringing the students into confrontation with the smells, noises, and rigor involved in various segments of the clusters. This experience will give them a basis on which to appraise their desire and ability to adapt and prepare for the various opportunities included in these clusters. Single clusters can then be chosen and appropriate "courses" and experiences worked out on an individual basis which can lead toward fulfillment of the students' individual goals.

In the eleventh and twelfth grades self-development will take place, designed to qualify students for successful entry employment when they leave school, and to successfully prepare them for their next educational step after high school as they move toward fulfillment of their individual maximum career goals. Individual student needs will be met in various ways and might include appropriate counseling and guidance, academic-subject scheduling, interdisciplinary team-taught programs, individualized continuous progress instruction, manipulative-skill development, field trips, and work experience programs. Classroom instruction will be extended to include segments of the greater community. Before high school graduation, youngsters who have completed the prerequisites or who otherwise qualify, may be permitted, on an individual basis, to enroll in appropriate available post-high school courses at trade schools, private schools, community colleges, universities, or other training institutions.

JAD
March, 1969
Seattle Public Schools

JAD:ph

SAMPLE A

SUGGESTED OCCUPATIONAL CLUSTERS AND PROGRAM ARRANGEMENT

General Courses
Comp. High School

Specialized Courses
Post High School

Career Clusters	Semi-Skilled	Skilled	Technical	Professional
1. Materials and Processes 2. Energy and Propulsion 3. Visual Communication 4. Personal Services	Grade Level Served 11 - 12	Grade Level Served 12 - 13	Grade Level Served 12 - 13 - 14	
	Time 1 hr. - 3 hr.	Time 2 hr. - 3 hr.	Time 3 hr. - 6 hr.	
	Objectives 1. Investigation 2. Orientation 3. Identify interest and ability 4. Develop basic skills	Objectives 1. Develop job skills 2. Develop job knowledge 3. Develop desirable work habits and attitude 4. Secure placement	Objectives 1. Develop technical skills 2. Develop technical knowledge 3. Secure placement	
	Opportunities 1. Further training on advanced levels 2. Part-time employment 3. Full-time payroll job employment 4. Explore other areas	Opportunities 1. Payroll assignment in a skill area 2. Further training 3. Retraining	Opportunities 1. Payroll assignment as a technician 2. Further training 3. Retraining	

TOTAL OPEN-ENDED OCCUPATIONAL-VOCATIONAL-TECHNICAL PROGRAM

General Courses
Comp. High School

Specialized Courses
Post High School

Career Clusters	Semi-Skilled	Skilled	Technical	Professional
Materials and Processes	Machine Operator Riveter Rigger Assembler Metal Finisher Burner Construction Laborer Farm Hand Garden Equipment Operator Chemical Process Operator	Machinist Patternmaker Welder Sheetmetal Man Pipefitter Carpenter Landscape Gardener Cement Worker Bricklayer Plasterer	Machine Tool Technician Tape Control Technician Fabrication Technician Mettallurgy Technician Wood Products Technician Concrete Technician Oceanographer Landscape Planner-Technician Park Foreman Ceramics Foreman	Industrial Engineer Mettallurgist-Microanalyst Structural Architect Landscape Architect Psysicist Chemist
Energy and Propulsion	Assembler Gas Station Operator Vehicle Driver Parts Chaser Airplane Washer Counterman Oiler Solderer Used-Car Porter Ordinary Seaman	Automotive Mechanic Auto Body Repairman Outboard Engine Repairman Air Frame Mechanic Power Plant Mechanic Office Machine Repairman Refrigeration Mechanic Electrician Electronics Repairman Able-bodied Seaman	Automotive Technician Marine Technician Meteorology Technician Pilot Flight Engineer Flight Inspector Instrument Technician Power Plant Technician Electronic Technician Ship's Officer	Electrical-Electroni Engineer Communications Engin Automotive Engineer Aeronautical Engineer Marine Engineer Atomic Power Engineer

NOTE: The job titles listed are not inclusive but are representative.

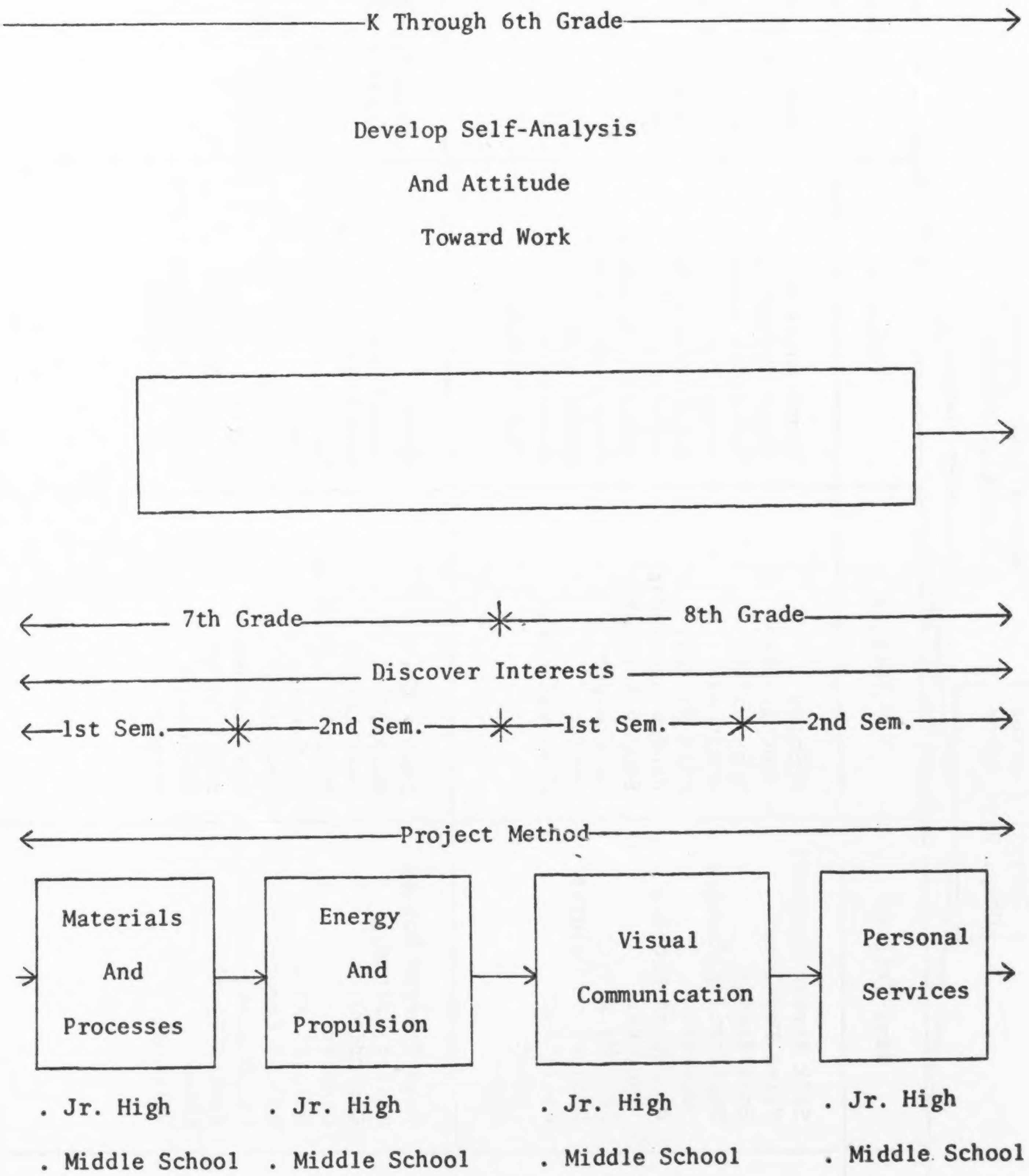
General Courses
Comp. High School

Specialized Courses
Post High School

Career Clusters	Semi-Skilled	Skilled	Technical	Professional
Visual Communication	Silk Screen Operator Print Developer Book Binder Duplicating Machine Operator Blueprint Machine Operator Records Keeper Production Painter Mail Clerk Typist Clerk	Printer Photographer Copy Writer Draftsman Sign Painter Window Decorator Supply Salesman Bookkeeper Teller Stenographer	Photo Engraver Paper Technician Technical Writer Translator Reproduction Technician Interior Designer Commercial Artist Programmer Accountant Bank Officer	Printing Manager Visual Communicator Process Engineer Advertising Consultant Artist Writer
Personal Services	Food Process Worker Waiter-Waitress Custodian Orderly Nurses' Aide Animal Caretaker Pressman-Spotter Postal Clerk Usher Watchman	Pastry Chef Stewardess Housekeeper Practical Nurse Cosmetologist Dressmaker Dry Cleaner Sales Person Policeman Fireman	Chef Restaurant Manager Hotel-Motel Manager Medical Technologist Nurse Garment Designer Buyer Sales Engineer Mfgr. Represenatative Actor-Musician	Home Economist Registered Nurse Teacher Dentist Physician Social Worker

NOTE: The job titles listed are not inclusive but are representative.

General Sequential Order Chart


K Through 6th Grade
Develop Self-Analysis
And Attitude
Toward Work
7th Grade
8th Grade
Discover Interests
1st Sem.
2nd Sem.
1st Sem.
2nd Sem.
Project Method
Materials And Processes
Energy And Propulsion
Visual Communication
Personal Services
. Jr. High
. Middle School
. Jr. High
. Middle School
. Jr. High
. Middle School
. Jr. High
. Middle School

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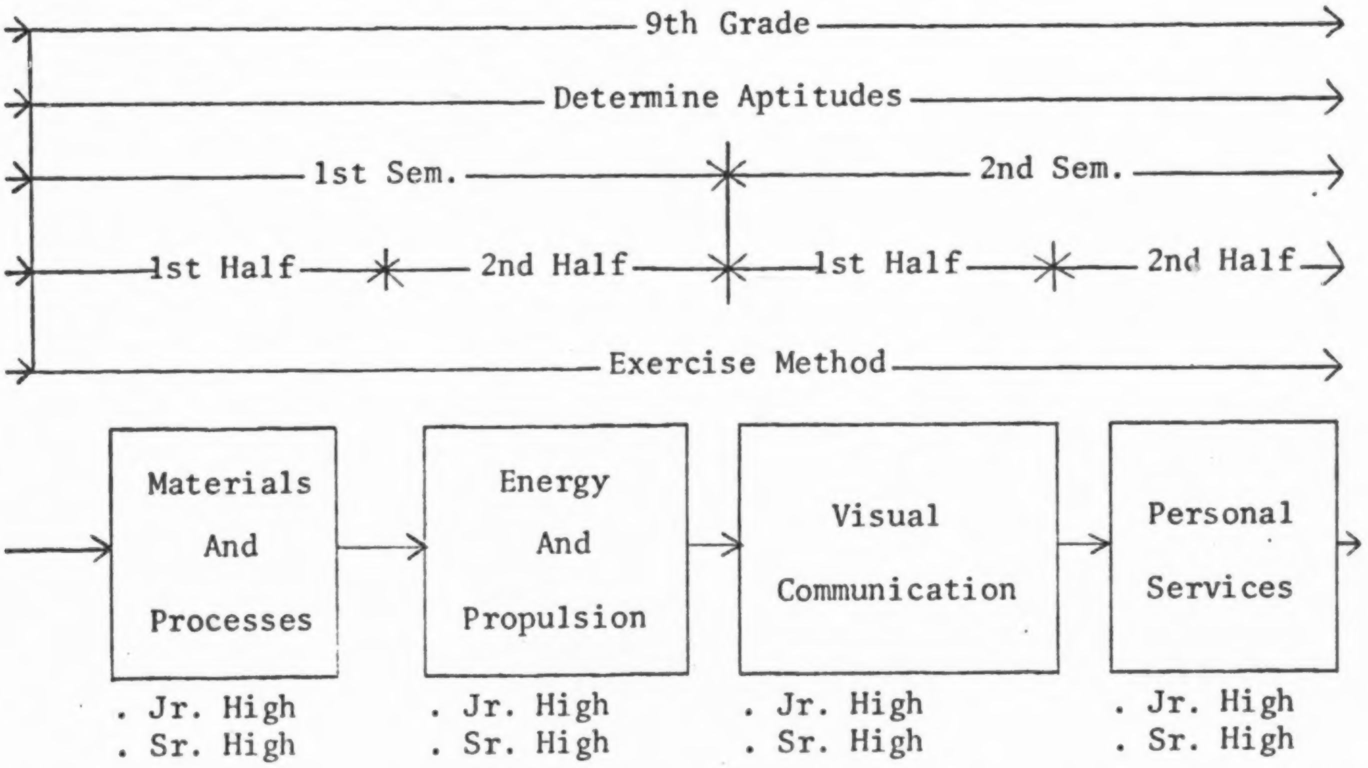
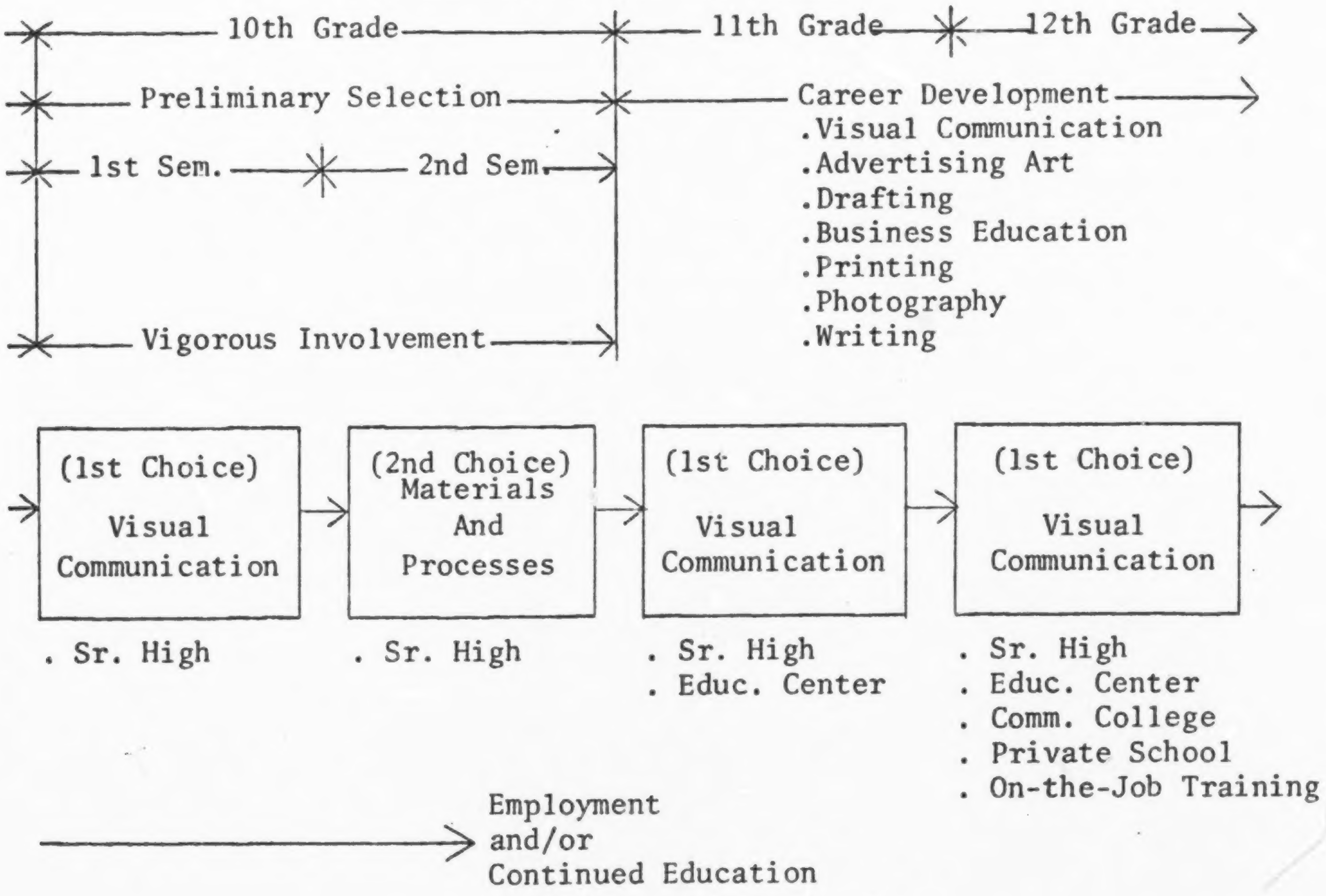

9th Grade
Determine Aptitudes
1st Sem.
2nd Sem.
1st Half
2nd Half
1st Half
2nd Half
Exercise Method
Materials And Processes
. Jr. High
. Sr. High
Energy And Propulsion
. Jr. High
. Sr. High
Visual Communication
. Jr. High
. Sr. High
Personal Services
. Jr. High
. Sr. High

Career Preparation Curriculum


10th Grade
11th Grade
12th Grade
Preliminary Selection
Career Development
.Visual Communication
.Advertising Art
.Drafting
.Business Education
.Printing
.Photography
.Writing
1st Sem.
2nd Sem.
Vigorous Involvement
(1st Choice) Visual Communication
. Sr. High
(2nd Choice) Materials And Processes
. Sr. High
(1st Choice) Visual Communication
. Sr. High
. Educ. Center
(1st Choice) Visual Communication
. Sr. High
. Educ. Center
. Comm. College
. Private School
. On-the-Job Training
Employment and/or Continued Education

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INDIVIDUALIZING LEARNING

A Resource Book

BY

HAROLD E. NICHOLS

WILLIAM J. SCHILL

ROSEMARIE McCARTIN

WITH

DUANE M. KELLY

BERNARD THOMPSON

KARLA M. WINKLEMAN

TABLE OF CONTENTS

PART A

- a. Introduction
- b. Overview
- c. Slide Response Sheets

PART B

- a. Classroom Utilization of Mediated Educational System
- b. LAP on Learning Activity Packages
- c. Development Flow Chart
- d. Learning Logic Flow Chart
- e. Classroom Layout Format

PART C

- a. System Overview and Teacher Role
- b. Development Procedures
- c. Problems Encountered

PART D

- a. Auto Mechanics
- b. Auto Mechanics Program Progress Record
- c. Social Science Program Progress Record
- d. Auto Mechanics LAP's
- e. Social Science LAP's

GARFIELD CAREER OPPORTUNITY PROGRAM WORKSHOP

on

LEARNING ACTIVITY PACKAGES

This workshop is the result of a contract between the workshop staff and the Seattle Public Schools. The materials in this workbook were prepared for the participants by the staff to facilitate the accomplishment of the workshop objectives. In addition to the materials included in this workbook, the workshop will utilize the curricular analysis recently completed by the Career Opportunity Program teachers.

Presented here is a brief overview of Learning Activity Packages and a somewhat more detailed outline of the workshop program. The introduction section is concluded with ten Statements of Learning Outcomes expected as a result of the workshop.

The workshop will provide each teacher with comprehensive information, procedures, and skills necessary for implementing a completely individualized, student-centered program of instruction for his subject matter area. The workshop will provide experiences for participating teachers in each of the following topical areas:

1.) Developing student-centered Learning Activity Packages (LAPS)

2.) Classroom management systems for Individualized Learning Programs

(Both of these objectives are predicated upon the utilization of curricular analysis data previously developed by the Career Opportunities Program teachers.)

The Learning Activity Package (LAP) will be the individualizing technique presented in the workshop. The LAP is a highly effective and economical process for developing individualized student-centered learning systems. The Learning Actitivy Package approach has been successfully used at many institutions.

IN-SERVICE EDUCATORS' RESOURCE BOOK on LEARNING ACTIVITY PACKAGES

INTRODUCTION:

The materials in this resource book were prepared to facilitate faculty development of Learning Activity Packages. Effective utilization of this resource book is predicated upon successful completion of a curricular analysis specifying learning outcomes.

Presented here is a brief overview of Learning Activity Packages and a somewhat more detailed outline of the in-service program. The introduction section is concluded with ten Statements of Learning Outcomes expected as a result of this resource book.

The resource book will provide each teacher with comprehensive information, procedures, and skills necessary for implementing a completely individualized, student-centered program of instruction for his subject matter area. The resource book will detail experiences for participating teachers in each of the following topical areas:

1.) Developing student-centered Learning Activity Packages (LAPS)

2.) Classroom management systems for individualized Learning Programs

(Both of these objectives are predicated upon the utilization of curricular analysis data previously developed by the Career Opportunity Program teachers.)

The Learning Activity Package (LAP) will be the individualizing technique presented in the resource book. The LAP is a highly effective and economical process for developing individualized student-centered learning systems. The Learning Activity Package has been successfully used at the following institutions:

1.) The Nova Schools, Fort Lauderdale, Florida
2.) Hughson Union High School, Hughson, California
3.) Modesto Junior College, Modesto, California
4.) Quincy Vocational High School, Quincy, Massachusetts
5.) The Maryland Correctional Training Center, Hagerstown, Maryland

The LAP is the product of a careful curriculum analysis. As such, it is a teacher developed document which provides a step-by-step learning guide for the student. The basic description of the LPA is that it serves each student in the same way that the Lesson Plan serves the instructor. The preparation of LAP's involves the following steps:

1.) Each Program of instruction is broken down into specific Courses.
2.) Each Course of instruction is broken down into major Subject Units.
3.) Each Subject Unit is broken down into major Concepts of Tasks.
4.) Each major Concept of Task is broken down into a series of appropriate Learning Activities.

The series of Learning Activities enable each student to master a specific concept or skill. Therefore, one of the first requirements in preparing LAP's is to decide on the scope of concepts or skills to be mastered by the student and then to sequence them. The typical LAP requires six to twelve hours of student time to complete. The format of a LAP avries from course to course and from application to application. However, all LAP's should have the following sections:

I. Rationale Section that provides the student with information explaining why the material covered in the LAP is important and why the student should learn the material.

II. Overview and Objectives Section that gives the student, in specific and mesurable terms, a detailed statement of what he will learn and what he will be able to do after completing the LAP.

III. New Words or Vocabulary Section that provides the student with the definitions of technical terms and new words that he will encounter as he goes through the learning activities.

IV. Learning Track Section that is the critical part of the LAP. It provides the student with precise instructions as to:

a.) Which pages of text material to read and what questions should be answered as the material is being read.

b.) What film strips, audio tapes, etc., are to be used and what questions should be answered while using the audio-visual instructional material.

The Learning Track Section then, tells the student what instructional materialto use, where it is located, and what to look for while studying the material. It is, in effect, a learning plan that directs the student's activity to insure his mastery of the required concept or skill.

V. Self Test Section - This is normally a self-scored test covering the objective(s) of the LAP. The student takes this when he feels that he has mastered the objectives of the package. An instructor scored test is usually made for the concepts covered by two or three LAP's. These tests provide necessary teacher evaluation checks to assess the quality of student performance and to prescribe additional learning experiences in areas in which the student is weak.

The LAP will utilize a variety of media and instructional resources. The LAP is unique in that it directs the student's efforts to whatever instructional resources will enhance his understanding of the concepts to be learned. The utilization of the LAP, in the final analysis, creates an instructional environment that produces learning outcomes of greater significance than mere mastery of subject matter content since the LAP allows each student to identify problems and to retrieve and use technical information in their solution. In effect, the student "learns how to learn."

The workshop will utilize audio-visual materials, discussion and group participation techniques in the accomplishment of workshop objectives.

A review of curricular analysis efforts already completed by the Career Opportunities Program teachers suggests that the proposed workshop can be successfully conducted with four (4) hours of classroom instruction per day for a total of twenty (20) hours of classroom activity. The teachers will be required to complete approximately ten (10) hours of activity outside of the classroom.

PROGRAM OUTLINE

1. Student-Centered Learning - An Overview
    - a. Characteristics
    - b. Administrative Problems
    - c. Examples of Operating Systems
2. Classroom Management of Student-Centered Learning
    - a. Role of the Teacher
    - b. Role of the Student
    - c. Management Requirements
    - d. Examples of Management Tools
3. Overview of Development Steps and Processes
    - a. Analysis Phase
    - b. Planning Phase
    - c. Implementation Phase
    - d. Evaluation Phase
4. System Pre-Design Techniques
    - a. Purpose of Pre-Design
    - b. Curriculum Content/Instructional Resources Matrix as a Development Tool
    - c. Steps for Pre-Design
5. Course Content Requirements
    - a. Need for Course Content Identification
    - b. Resources Documents
        - 1.) Dictionary of Occupational Titles
        - 2.) Occupational Outlook Handbook
        - 3.) State Program Content Requirements
    - c. Utilization of developed Curriculum Guides

6. Learning Resources Identification
    a. Identification of Existing Resources
    b. Identification of Additional Resources
    c. Relating Resources to Learning Activities
7. Learning Activity Identification
    a. Analysis Steps
    b. Documentation Forms
    c. Relating Learning Activities to Course Content Requirements
8. Work/Learning Station Design
    a. Characteristics of Station Concept
    b. Relationship of Stations to Learning Activities
    c. Techniques of Station Design
9. Learning Resource Center Design
    a. Characteristics of an LRC
    b. Relationship of the LRC to Work/Learning Stations
    c. Techniques of LRC design
10. Outlining Learning Activities
    a. Techniques for Homogeneous Grouping of Activities
    b. Relating Activities to Resources and Stations
    c. Relating Learning Activities to the Classroom Student Management System
11. Learning Activity Package Development
    a. Rationale Section
    b. Overview and Objectives Section
    c. Pre/Post Test Section
    d. Learning Track Section
    e. New Words Section
12. Program Implementation Steps
    a. Classroom Management System Preparation
    b. Physical Facilities Preparation
    c. Learning Resources Procurement
    d. Reproduction of Student Materials
    e. Student Introduction Program

STATEMENT OF LEARNING OUTCOMES

Upon completion of this In-Service Teacher Program, each participant will be able to:

1. Describe the characteristics of an Individualized Learning Program.
2. Define the role of the teacher and the role of the student in an Individualized Learning Program.
3. Develop a classroom management system that will control individual student progress and learning in his course of instruction.

4. Describe the four development steps required to produce a Learning Activities Package.
5. Analyze a course of instruction and list the minimum essential learning activities that students must perform to become qualified for employment (at the entry level).
6. Identify and document the minimum essential learning resources required to support the learning activities for a given course of instruction.
7. Design and locate the necessary Work/Learning Stations required to support the learning activities for his course of instruction.
8. Develop a Learning Resource Center that will support the Work/Learning Stations in his course of instruction.
9. Outline, group and sequence the Learning Activities in his course of instruction into Learning Activity units.
10. Write at least one Learning Activity Package for one unit.

ADVISORY COMMITTEES FOR CAREER OPPORTUNITY PROGRAM 1970-1971

The advisory groups have similar purposes: to keep us informed of the employment prospects in the particular industry; to advise on educational programs; and to assist in on-the-job training for students. Membership in the committees is as follows:

Carpentry Advisory Committee Membership:

Bob Buckingham (Chairman)
King County Joint Apprenticeship Training
2512 Second Avenue Room 210
Seattle, WA MU 2-2920

Wilbur "Rusty" Hays
Business Representative
District Council of Carpenters
2512 Second Avenue
Seattle, WA MU 2-0360

Robert Jackson
Employment Security Department
518 Thomas Street
Seattle, WA 464-6222

George Williams,
Area Manpower Representative
Human Resources Development Institute
AFL-CIO
Labor Temple, Room 208
2800 First Avenue
Seattle, WA 98121
MA 3-5393

Tom Miller
COP Education Specialist
Ex Officio Member
2101 South Jackson Street
Seattle, WA 98144

Vincent Mitchell
Carpenter
2605 East Lynn
Seattle, WA 98102

J.J. Morris, Coordinator
King County Sheet Metal JATC
Labor Temple, Room 220
2800 First Avenue
Seattle, WA 98121
MA 4-8366

Child Day Care (School District Committee--meets annually):

Mrs. G. Hall, Peppermint Playhouse
Mrs. Sadie Harris, South Center Day Care
Mrs. Mildred Reed, Seattle Day Nursery
Mrs. Margaret Sanstad, Neighborhood House
Rev. Ralph Wilde, Wallingford Day Care Center
Mr. Roger Wilson, Gingerbread House Preschool
Mrs. Janet VanLaw, Dept. of Public Assistance
Miss Audrianna Allen, Seattle Public Schools
Mrs. Grace Granberg, University of Washington
Mrs. Frances Prindle, Seattle Community College
Mrs. Margaret Johnston, University of Washington

Child Day Care Youth and Parent Training Advisory Committee Members (Garfield):

Baum, Dr. Jocelyn - Title I Physician
Christofferson, Norma - Seattle Day Care Nursery
Crumb, Jean - Director of Nursing, American Red Cross, Seattle Area
Davis, Joseph - United Good Neighbors
Davis, Viola - Health Specialist, Extended Services Program
Dixon, Diane - Seattle Day Nursery - Model Cities Child Care Center
Gentry, Alma - Coordinator, Student Services, Central Region
Giles, Lee - Counselor, Garfield High School, Campus "A"
Goulsby, Lydia - Nurse, Leschi School
Hara, Amy - United Good Neighbors
Haynes, Maxine - Odessa Brown Children's Clinic
Henderson, Gloria - International Child Care Center
Hoen, Ruth - International Child Care Center
Hutchins, Nancy - Seattle Day Care Nursery
McGuire, Betsy - King County Child Care Coordinating Committee Director
Reed, Mildred - Seattle Day Nursery
Roth, Dorothy - Nurse, Garfield "B"
Schuller, Helene - Education Specialist, C.O.P., Garfield "B"
Shimokawa, June - Special Counseling and Continuation School
Showalker, Barbara - Red Cross Nurse with Extended Services Program
Stuart, Kathleen - Home Economics Supervisor, Seattle Public Schools
TenPas, Bonnie - Educator, Child Development, Garfield "B"
Ticeson, Shirley - Head Nurse, Garfield High School, Campus "A"
Watts, Pat - Nurse, Extended Services Program
Weiss, Valerie - Health Education Specialist, McGilvra School

Construction Technology:

James D. Burns, Builder
Eugene Coshow, Plasterer's Union, Local No. 77
Richard Friffiths, Jr., Farwest Construction Company
Wilson (Rusty) Hays, Carpenters Local No. 131
Bob Buckingham, Seattle District Council of Carpenters

Cosmetology:

Mrs. Marie Edwards, Edwards Beauty School
Mrs. Gladys Allen, Central Region Parent
Mrs. Flossie McFarlain, Beautician
Mrs. Cazelle Aguilar, Beautician and Instructor
Mrs. Alberta Woodard, Beautician
Mrs. Viola Repanich, Beautician's Local 195A
Mrs. Juanita Murray, Beautician and Instructor
Mrs. Isaah Edwards, Edwards Beauty School

Mrs. Mattie Cardenas, Central Area Parent
Miss Vanessa Lucas, Garfield Student
Mrs. Elma Horton, Central Area Parent
Mrs. Bertha L. Dowell, Central Area Parent
Mrs. James Bryant, Central Area Parent
Mrs. Esther Donahue, Licensed Beautician
Miss Pattie Bishop, Garfield Student
Mr. W. D. McLeod, Secretary-Treasurer of Beautician's Local 195A, B
Mrs. Alma Mitchell, Licensed Beautician
Mrs. Helen Jackson, Licensed Beautician
Miss Evelina Rogers, Central Area Student
Mrs. Jesse Daniels, Beautician, Vocational Education Instructor, Garfield
Mrs. Helene Schuller, Ex-officio member, Education Specialist, Garfield

Drafting:

Richard A. Evans, Boeing Company, Renton, Washington
William Johnson, Graphic Systems, Bellevue, Washington
Steven P. Mitchell, Aeronautical Industrial District Lodge 751,
International Association of Machinists
Richard Kirihara, Lincoln High School, Seattle, Washington
Earl Riley, Drafting Instructor, Rainier Beach Junior-Senior High School
Bill Sweetman, United Control, Redmond, Washington
Val Riekstins, Interface Mechanisms, Inc.

Dry Cleaning:

Patrick Francis, Former Owner of Gilt Edge Cleaners
Ramona Jenkins, Ramona's Cleaners
Jack Kapler, Mt. Baker Cleaners
Bill T. Meyer, Secretary-Treasurer, Laundry & Dry Cleaning Drivers,
Local 566
Harold Newcomer, Instructor, Seattle Community College, Central Branch
Harold Price, Former Dry Cleaner Owner and Operator
Joseph A. Spates, Joe Spates the Cleaner
James Walsh, Former Owner & Operator of LaCharme Cleaners (Chairman)

FEAST: (meets semi-annually)

Mr. James Pearce, Manager, Rainier Club
Mr. Lou Patricelli, Manager, Spindrift Restaurant
Mr. Denver Burtenshaw, President, Alpine Food Products, Inc.
Mr. Edward Carney, Business Agent, Cooks and Assistants Union Local #33
Mr. Paul Matteucci, West International Hotels (Controlle-Hotel Division)
Mrs. Seba Miller, Business Agent, Waitress Union #240, President
Mrs. Alice Beals, Secretary-Treasurer, Waitress Union #240
Miss Dorothy Vorhies, Head Dietician, Virginia Mason Hospital
Mrs. Winifred Young, Manager, Mannings' Cafeterias
Mr. Vernon Lemmert, Business Agent, Cooks & Assistants Union, Local #33
Mr. Dennis Weaver, Manager, Windjammer

Mr. Kenneth Baer, Director, Secondary Lunchrooms, Seattle Public Schools
Mr. Vince Galvin, Seattle Community College, Director of Hospitality and Food Services
Mrs. Helen Engard, Washington State Employment, Counselor
Mrs. Amy Jackson, Catering

Life Science Training Program Advisory Committee Membership--

Mrs. Millie Russell, Medical Technologist, King County Central Blood Bank, (Chairman)

Nursing Aide/Orderly:

Mary Lee Bell, R.N.
Betty Berg, Student in School of Nursing, University of Washington
Jeanne Crumb, R.N., Director of Nursing, American Red Cross, Seattle Area
Anne Lagried, R.N., Nursing Instructor, American Red Cross
C.R. Merriweather, Director of Merri Acres and Merri Vista Convalescent Hospitals
Thelma Pegues, R.N., Medical Technologist, Associate Degree Nursing Instructor, Seattle Community College, Central Branch
Shirley Ticeson, R.N., Hamilton Middle School, Seattle Public Schools

Lab Assistant:

Ethyl Blood, Lab Technician, National Marien Fisheries Services, Biological Laboratory, Department of Commerce
Dorothy Fairbanks, Health Medical Department, North Seattle Community College
Nelson Hill, Lab Technician, University of Washington Medical School, Health Sciences Complex
Robert D. Hoag, M.D., Pathologist, Seattle
Millie Russell, Medical Technician, King County Central Blood Bank
Steve Turner, Oceanographer, Department of Commerce, National Marine Fisheries Services

Oral Health Aide:

Harlan Bosworth, Oral Health Therapist, Seattle
Dr. Peter Domoto, Dental Director, Odessa Brown Children's Clinic
Pat Goebel, Dental Hygienist, Seattle
Maxine Haynes, Health Educator, R.N., Odessa Brown's Children's Clinic
Dr. Robert E. Harris, Dentist, Seattle
Dr. Wonzel M. Mobley, Dentist, Seattle
Clarinda Olson, Dental Department, Seattle Community College

Machinist and Machine Operator

Donald Barklow, Leckenby Company, Seattle
Bill Traub, Pacific Car and Foundry, Renton
Ray Renard, Renard Manufacturing Company, Seattle
Thomas Bowman, United Control Corporation, Redmond
Donald Lumley, Todd Shipyard, Seattle
Kenneth R. Muzzy, Keenan Manufacturing Company, Seattle

Marine Engine Technology:

J. Orin Edson, Advance Outboard, Inc., Seattle
Howard Anderson, Anderson Marine Service, Edmonds
Jim Gonnason, Gonnason's Marina, Kent
Bill Semon, Seaborn's Marina, Seattle
Frank B. Deuster, Northwest Marine Industries, Inc., Seattle

Radio Communications:

Joe Sabo, Public Affairs, KOL
Jack Kain, International Brotherhood of Electrical Workers, Local 46
Chuck Morris, Chief Engineer, KIRO
Donald Cannon, Program Director, KOMO
William Pickering, Field Engineer, KOMO
Gary Taylor, Program Director, KJR
Jim Hatfield, Consulting Radio Engineer
William Tucker, KIRO
Danny Holiday, KING
George Toles, Program Director, KIRO
Lawrence Adams, Nathan Hale High School, Seattle Public Schools

Salesperson:

Miss Hildegarde Bitz, Safeco Insurance Company
Mr. Russell A. Davis, Executive Director, Washington Society of Certified Public Accountants
Mr. Charles Hammond, Director of Data Processing, Seattle Public Schools
Mr. Gil Koller, Business Education Department Head, Ingraham High School
Mrs. Leda Lundstrom, Financial Systems
Mr. Kirby Morgan, Business Education Department Head, Garfield High School
Mrs. Margaret Roberts, Occupational Education Task Force
Mr. William Totten, Vice President & Secretary, Washington Mutual Savings Bank

Sewing for Profit:

Mrs. Sylvia Allam, Women's Alteration Department Head, Frederick & Nelson
Mrs. Delores Anderson, Dressmaking Instructor, Seattle Community College
Mr. Walter R. Collins, President, Collins Draperies, Inc.

Mrs. Julia Laskie, Tailors Union Local 71
Mr. Larry Mounger Sr., President, Pacific Trail Sportswear Apparel, Inc.
Mr. Keith Sterkman, Manager, Men's Tailor Shop, Klopfenstein's Inc.
Mr. M. E. Forwood, Power Sewing Instructor, Seattle Community College
Mr. Ernie Endress, Proprietor, Three Brothers Cleaners and Dyers
Mrs. Bertha McVay, United Garment Workers Local 17
Mrs. Eloise Pratt, International Ladies Garment Workers Union, Local 184
Mr. Bill Rister, Owner-Manager, Northwest Mills, Inc.

Sheet Metal Worker:

(See Carpentry Advisory Committee)

Visual Communication:

Bart Attebery, Commercial Photographer
Fred Hilliard, McCann-Erickson, Inc.
Okley Lotz, Farwest/Acme Incorporated
Eugene T. Macellari, Lithographers & Photoengravers International Union
Dr. Ray A. Schwalm, Professor of Visual Communications, WWSC
Stann Stapp, Editor, North Central Outlook
David Strong, David Strong Design Group
Huey Tanner, Alph Cine Laboratory
Tom Tsutakawa, Graphic Communications, Boeing Company

Service Station Attendant Advisory Committee:

Dave Allen, University Manor Garage, Chairman JAT Auto Machinist Union
Peter Dooley (Chairman), Mobil Oil Training Corp.
Robert Hamlet, Hamlet and Lewis Texaco
Tom Miller, COP Education Specialist, Ex-officio member
Jim Robertson, General Auto Warehouse
Lloyd Wilson, Secretary of Board, JATC and Business Representative Auto Machinists, Local #289
Dick Sathre, Recruiting Representative, Shell Oil Company
Chuck Worthington, Standard Oil Company of California
Ray Polson, Dealer, Polson's Texaco Service

Welding Advisory Committee

William Boyd, Pacific Car & Foundry, Structural Steel Division
Jack Bracken, Welding Instructor, Seattle Central Community College
Lee Bull, Welding Instructor, Seattle Opportunities Industrialization Center, Skills Center
Jim Francis (Chairman) Lake Union Drydock Company
Orres Johnson, Todd Shipbuilding Corporation

Robert Mahoney, Leckenby Steel Fabricating Company
Tom Miller, C.O.P. Education Specialist, Garfield High School
Dennis L. Miner, Superintendent of Mechanical & Engineering Dept., Bethlehem Steel Corporation
Cliff H. Olin, Commercial Welding Company
Jack Sloan, Boilermaker's Local #104
A. H. Sonn, Coordinator, Western Washington Employers & Ironworkers Apprenticeship Training Program
Paul Wentink, Welding Engineer, Lockheed Shipbuilding Company
M. C. Williams, Pacific Car & Foundry, Renton Division

ADDENDUM E

Addendum to Proposal Number 1-361-0168

Point I States:

"Provision must be made for students not previously enrolled in vocational programs to receive specific training in job entry skills just prior to the time they leave the school. Although provision is made for graduating seniors and potential dropouts to receive special training in job entry and interviewing techniques, skill training must also be included as a component. The training programs may be intensive and of short duration."

The main concern is to "provide as much as possible in a short time." With this in mind, an individualized "learn by doing" approach will be employed. It is possible to use this approach in all of the occupational areas, i.e., service station attendant, auto mechanic, construction technology, welding, nursing, dry cleaning, clothing construction, salesmanship, FEAST, child day care, barbering and cosmetology, since associated with these programs are instructional work centers that provide self-contained, supervised, instructed, on-the-job training experience. In the occupational areas that must be preceded by an apprenticeship program, (see Attachment #1) it will be necessary to bolster the math or other academic job related skills in order to be sure the student meets the entry level qualifications of the apprenticeship program. To do this the student will be given an individualize math or language program that deals only with the job related academic skills necessary for the particular entry level of the job.

The provisions that have been developed provide for a short, intense training period that can be completed by a student at practically any time during the school year. These provisions will only be made, however, for those students who did not or cannot (for a variety of reasons) avail themselves of either one or more full semesters of a career opportunity program course. Short duration in most cases will mean one or two months, although if a student has less time before leaving school, every attempt will be made to do what is possible; on the other hand, students may remain in the program for a maximum of three (3) months.

TIME CONCERNS

Where possible the intense training period will be conducted after school daily for 2-3 hours in order not to interrupt the student's present class schedule. In the instances where this is not possible students (particularly seniors) may register for this training durin a service period or any elective course period. In most cases this time will amount to at least 160 minutes (sometimes 240 minutes) every other day, for two (2) to three (3) months.

Three other alternatives have been proposed for the organization of time:

1. Students should be released from all other classes for a 4-6 week period to attend this course.

2. The course should be offered after school.

3. The course should be offered during the summer time.

The first alternative was dismissed because of state regulations which require the completion of certain courses each year for graduation.

The other two alternatives were dismissed since the budget as it has been submitted does not provide for the extra cost that would be incurred, e.g., salaries for more instructor time and rental of facilities. The only area where after-school hours staff has been provided is in the service station-auto mechanic program.

RECRUITING AND SELECTION PROCESS

The availability of such classes will be known to all teachers, students and counselors, especially senior counselors, vocational counselors, and counselors affiliated with dropout prevention programs, e.g., Title VIII, Extended Services Program, and the Personal Development Center. The teacher or counselor who identifies the student, as well as the student on his own initiative, should contact the vocational counselor who will set up a time schedule and register the student in the course.

ONE-DAY ORIENTATION AND OVERVIEW

All students who wish to enroll in this intensive training course, regardless of the career area, will meet together for an entire day for an orientation to the world of work and an overview of the objectives and prodedures of the program. During this orientation program, students will be given a listing of the vocations offered, the specific jobs, and the duties and responsibilities for which we can offer specific training. Other areas will also be discussed. If a student is interested in some area other than one we can offer, arrangements will be made to use the community college resources to provide this training. We intend to employ films, resource speakers, the "VIEW" aperture card micro-fiche system and other techniques.

When the student has made his selection, he will be given the procedures for enrolling in the course. The "learn by doing" process begins at that point.

THE INDIVIDUALIZED "LEARN-BY-DOING" PROGRAM APPROACH

Objectives:

1. Within a short period of time, a student is to satisfactorily perform entry level skills associated with a chosen occupation in an actual work or simulated work setting. (see Attachment #2)

2. Within a short period of time, students will begin to exhibit good work habits, by decreased absenteeism, decreased tardiness, by increasingly following directions properly and by completing assignments correctly and on time.

3. Within a short period of time, a student is to have the ability to evaluate his own performance level in order to determine if his skills meet those required for a specific job.

Since the major focus of this intense training period is to provide as much learning as possible in a short period of time, it is evident that the learning must be individualized. Our approach allows us to quickly assess the student's present skills and program him into activities where he will attain skills he does not already possess.

The first body of skills to be developed are those which gain access to employment:

1. Making an appointment for an interview

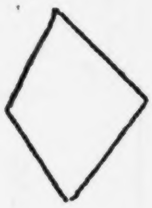
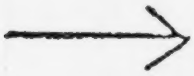
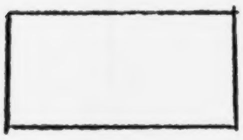
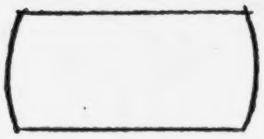
2. Filling out the application

3. Interviewing

The second body of skills include the actual performance skills associated with a specific occupation. (see Attachment #2)

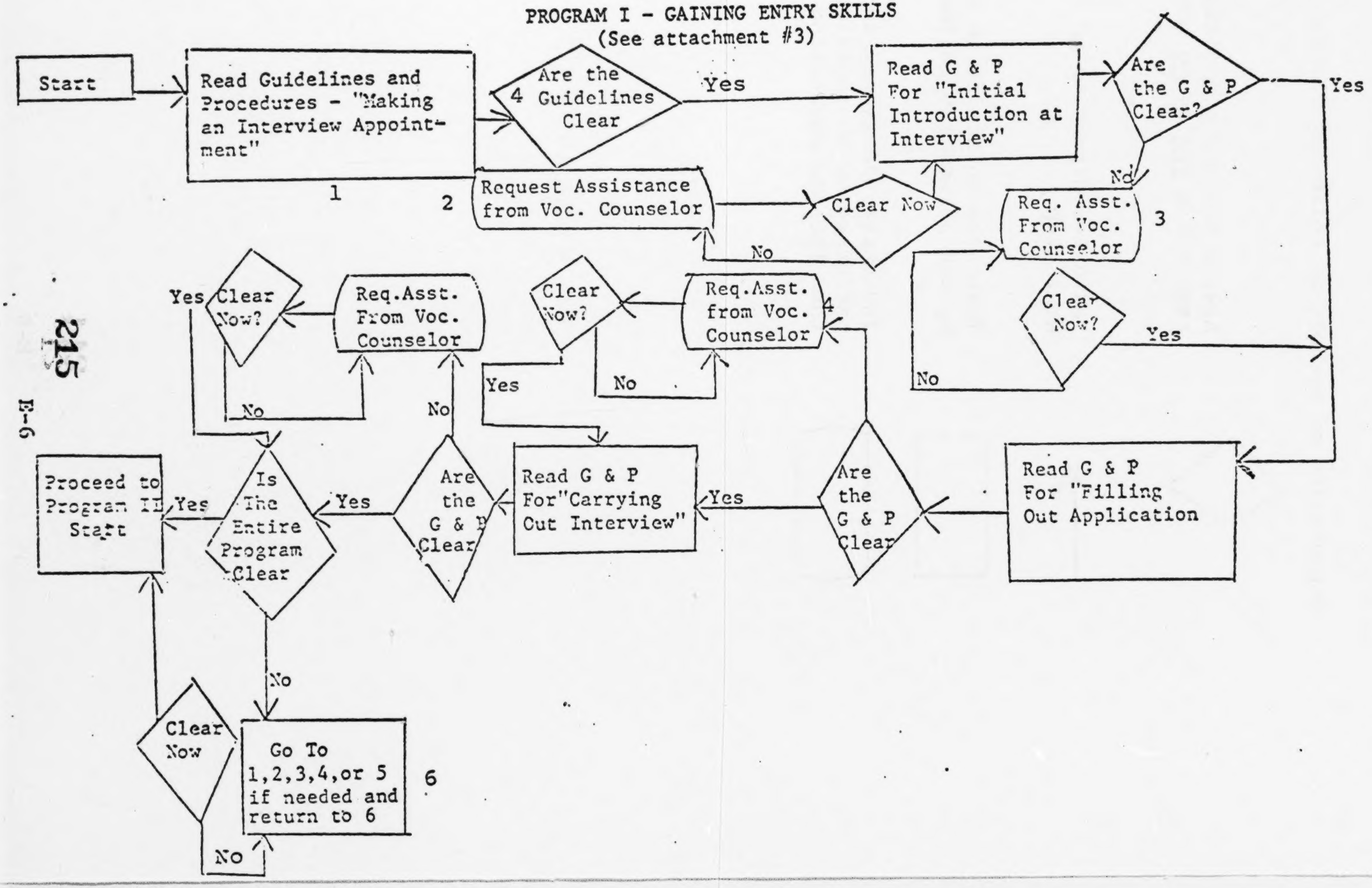
The charts that follow give the design of the individualized programs.

Explanation of Symbols in Following Charts

	Always denotes a question that requires a yes or no answer
	Indicates direction to find the next step
	Indicates an action to be performed by the person completing the program
	Indicates additional input being performed by an individual other than the one completing the program

PROGRAM I - GAINING ENTRY SKILLS

(See attachment #3)


Start
Read Guidelines and Procedures - "Making an Interview Appointment"
1
Are the 4 Guidelines Clear
Yes
Request Assistance from Voc. Counselor
2
Clear Now
No
Read G & P For "Initial Introduction at Interview"
Are the G & P Clear?
Yes
No
Req. Asst. From Voc. Counselor
3
Clear Now?
Yes
No
Read G & P For "Filling Out Application
Are the G & P Clear
Yes
Req.Asst. from Voc. Counselor
4
Clear Now?
No
Yes
Read G & P For "Carrying Out Interview"
Are the G & P Clear
Yes
No
Req.Asst. From Voc. Counselor
Clear Now?
No
Yes
Is The Entire Program Clear
Yes
No
Proceed to Program II Start
Go To 1,2,3,4,or 5 if needed and return to 6
6
Clear Now
No

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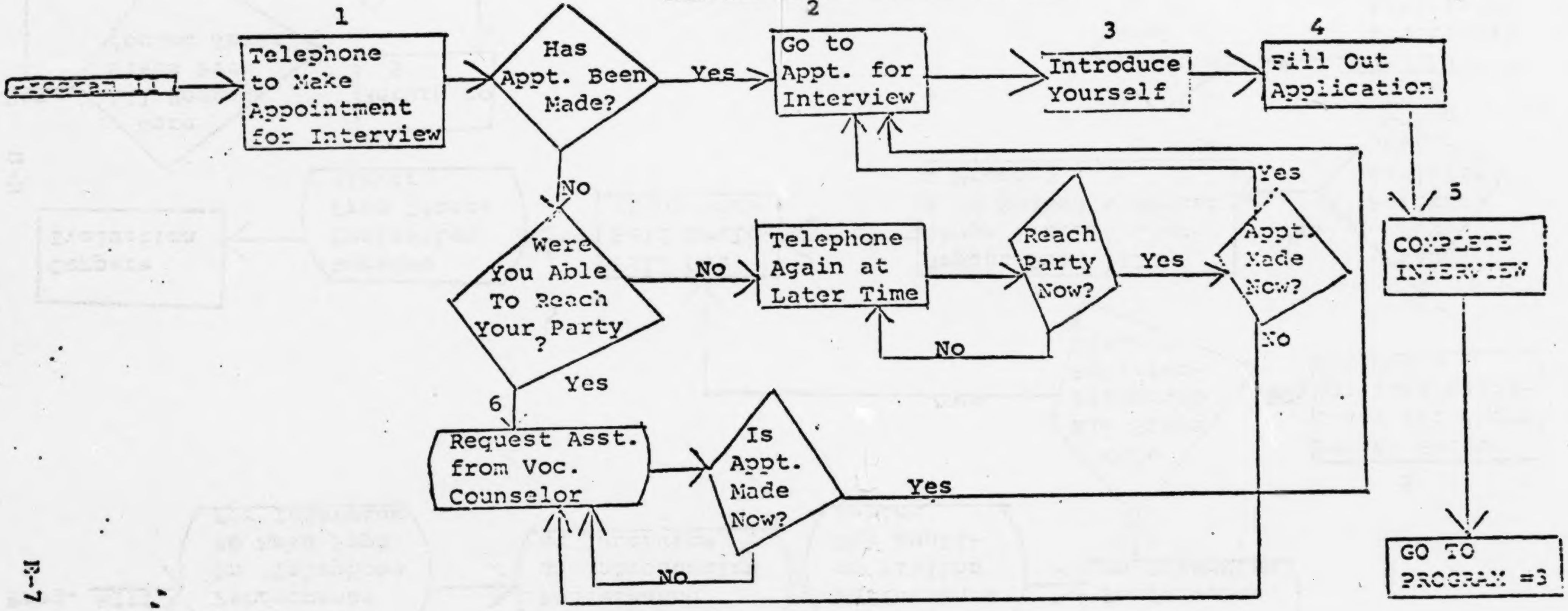
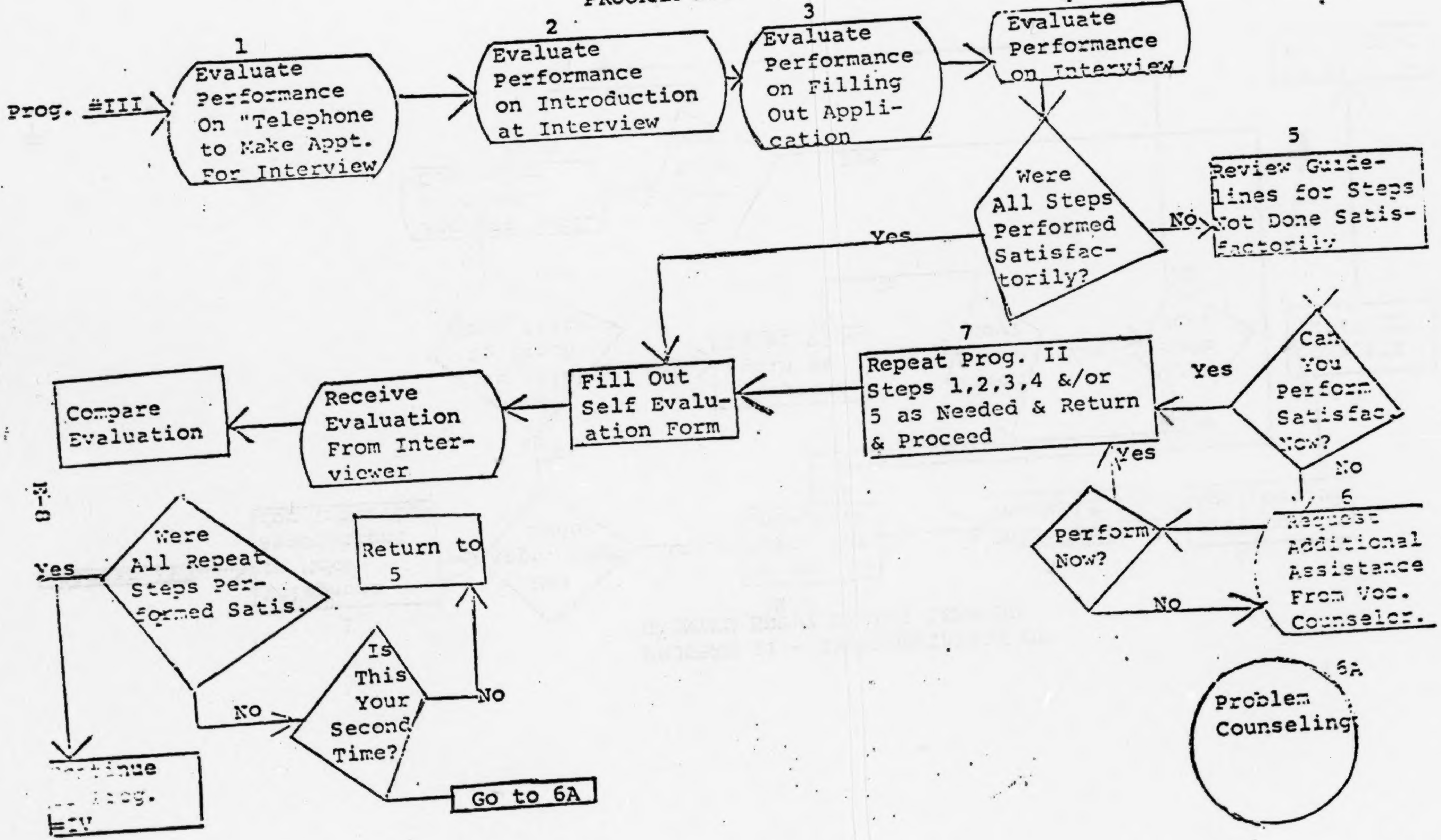
PROGRAM II - IMPLEMENTATION OF GAINING ENTRY SKILLS LEARNED

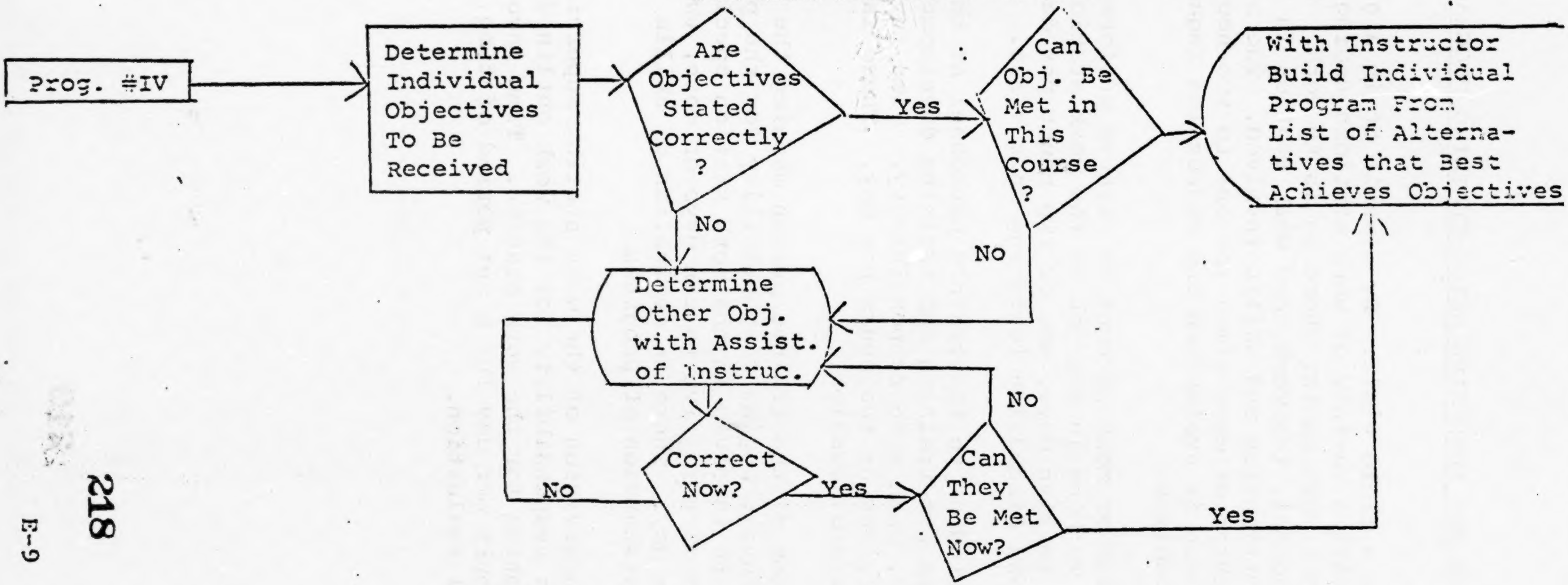

Program II
1
Telephone to Make Appointment for Interview
Has Appt. Been Made?
Yes
No
2
Go to Appt. for Interview
3
Introduce Yourself
4
Fill Out Application
5
COMPLETE INTERVIEW
GO TO PROGRAM =3
Were You Able To Reach Your Party?
No
Yes
Telephone Again at Later Time
Reach Party Now?
Yes
No
Appt. Made Now?
Yes
No
6
Request Asst. from Voc. Counselor
Is Appt. Made Now?
Yes
No

PROGRAM III - EVALUATION OF PROG. II


Prog. #III
1
Evaluate Performance On "Telephone to Make Appt. For Interview
2
Evaluate Performance on Introduction at Interview
3
Evaluate Performance on Filling Out Application
4
Evaluate Performance on Interview
Were All Steps Performed Satisfactorily?
No
5
Review Guidelines for Steps Not Done Satisfactorily
Yes
Fill Out Self Evaluation Form
Receive Evaluation From Interviewer
Compare Evaluation
7
Repeat Prog. II Steps 1,2,3,4 &/or 5 as Needed & Return & Proceed
Yes
Can You Perform Satisfac. Now?
No
6
Request Additional Assistance From Voc. Counselor.
Perform Now?
Yes
No
6A
Problem Counseling
Were All Repeat Steps Performed Satis.
Yes
Continue to Prog. #IV
No
Is This Your Second Time?
No
Return to 5
Go to 6A

E-8

PROGRAM #IV BUILDING OBJECTIVE FOR INDIVIDUALIZED PROGRAM


Prog. #IV
Determine Individual Objectives To Be Received
Are Objectives Stated Correctly ?
Yes
No
Can Obj. Be Met in This Course ?
Yes
No
With Instructor Build Individual Program From List of Alternatives that Best Achieves Objectives
Determine Other Obj. with Assist. of Instruc.
Correct Now?
No
Yes
Can They Be Met Now?
No
Yes

ALTERNATIVES FROM WHICH THE INTENSIVE SKILL TRAINING PROGRAM WILL BE BUILT

1. Student goes on a field visit. By himself or in a group, the student visits a variety of work stations ending at the instructional work center where he is to work. He is to observe personnel, teamwork, and work station in relation to the job specification and skills involved. The student visits one to three or more times for one to two-hour per day visits. There is evaluation and discussion regarding the job specification.

2. Assignment of one or more persons to observe performance of person trained working in the job of the work station. Time involved: one to five days, one or two hours per day. There is evaluation and discussion following this visit.

3. Assignment of student to the trained personnel at the work station to begin pre-training and training development of skills involved, with some responsibility. Time involved: one to six days, one or two hours per day. There is follow-up evaluation and discussion.

4. Under supervision of the trained person manning the work station, the student begins responsibility for the performance of the work involved in the work station specifications. Time involved: five to ten days or more, two or three hours per day. There is evaluation of skills developed and discussion of progress.

5. Under direct supervision of the work station supervisor, student assumes responsibility for the work outlined in the job description for the work station. Time involved: two or three hours per day for a set period of time. There will be a final evaluation.

ATTACHMENT #1

Sample Qualification Standards
For Entry into Apprenticeship Program

NOTE: THE FOLLOWING ADDENDUM SHALL BE SPECIFIED TO THE INDIVIDUAL JOINT APPRENTICESHIP COMMITTEE AND ITS CRAFTS AND PROBLEMS:

SEATTLE CONSTRUCTION ELECTRICIAN APPRENTICESHIP STANDARDS

The following standards of apprenticeship, Seattle Electrical Workers, with supplements pertaining to the necessary work experience of the trade and a progressive wage scale, approved by and registered with the Washington State Apprenticeship Council, govern the training of apprentices in this industry.

ADDENDUM:

1. AREA COVERED:

   The area covered by these standards shall be King, Jefferson, Kitsap and Clallam Counties in the State of Washington.

2. QUALIFICATIONS AND SELECTION PROCEDURE OF APPRENTICES:

   A. Applicants for an electrical apprenticeship must be between the ages of eighteen (18) and twenty-five (25) years and must be high school graduates. Education must include one (1) year each of algebra and geometry.

   B. The applicant will sign the "Record of Apprentice Applicants" form and will be given an "Application for Apprenticeship."

   C. Upon returning the completed application form, the applicant will be instructed to take the aptitude test, the results of which will be forwarded to the Joint Apprenticeship Committee secretary.

   D. The applicant will be instructed to request a transcript of all school records and grades, which will be forwarded to the Joint Apprenticeship Committee secretary.

   E. When these steps have been completed and noted on the "Register of Apprentice Applicants" form, the applicant is instructed to appear before the Joint Apprenticeship

Committee for interview and comparative evaluation and score and placed on the list accordingly to await employment.

F. Applicants with previous experience or training in the trade may be given an advance rating after a review of the merits of each individual case by the Joint Apprenticeship Committee.

G. Selection of apprentices under this program shall be made from qualified applicants without regard to race, creed, color, national origin or physical handicap.

ATTACHMENT #2

Samples: Entry Level Performance Skills
Performance Expectation Level
To Be Achieved in This Course

CODE FOR ACHIEVEMENT LEVELS OF EXPECTATION[1]

1 - Student can be expected to name tools, parts and simple facts about the task.

2 - Student has been introduced to the task components but cannot be expected to perform without supervision of a journeyman.

  2A (Same as 2) Student is reasonably adept at acquiring new skills

  2B (Same as 2) Extensive on-the-job training and extremely close scrutiny appears necessary to advance corpsman to a competitive skill level.

3 - Requires only limited supervision. The degree of supervision normally required on the job. Student can identify and resolve some problems relating to the task (trouble shooting ability). Requires only a partial spot check of completed tasks.

4 - The student can analyze problems, evaluate problems, and make proper decisions about task. He can also perform each task quickly and accurately and tell or show how to perform the task.

X - No training to be provided

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[1] Abstracted from Office of Economic Opportunity Job Corps Training Standard for Welding -- Production Line D.O.T. Code 812.844, May, 1968.

COOK'S HELPER

1. Safety	
a. Apply ground safety precautions on the job	3
b. Apply safety precautions when handling cleaning agents, chemicals and solutions	3
2. Prepare Food for Cooking	
a. Select foods necessary to serve meals in accordance with menu	
(1) Meats	2A
(2) Vegetables	2A
(3) Poultry	2A
(4) Seafoods	2A
(5) Fruits	2A
(6) Dairy and Poultry Products	2A
(7) Cereals	2A
(8) Beverages	2A
b. Select necessary substitute foods having equivalent nutritive values	x
c. Prepare meats, seafoods and poultry for cooking	
(1) Fresh	3
(2) Canned	3
(3) Frozen	3
(4) Dehydrated	2A
(5) Salted	2A

(6) Dried	2A
(7) Smoked	2A
d. Prepare fruits and vegetables for cooking or serving	
(1) Fresh	3
(2) Canned	3
(3) Frozen	3
(4) Dried	3
(5) Dehydrated	1
e. Prepare poultry products for cooking	
(1) Fresh eggs	3
(2) Frozen eggs	1
(3) Dehydrated eggs	1
f. Apply proper condiments to food	2A
3. Cooking of food for serving	
a. Utilize dry or moist heat for cooking food in accordance with standard, revised or created recipes	
(1) Meats	
(a) Beef	1
(b) Pork	1
(c) Lamb	1
(2) Poultry	1
(3) Seafoods	1
(4) Vegetables	1
(5) Paste Products	1

(6) Beverages	3
(7) Soups	1
(8) Sauces and Gravies	1
(9) Desserts	1
(10) Salad Dressings	1
(11) Fruits	1
(12) Breakfast foods	2A
(13) Eggs	2A
(14) Dairy Products	1
(15) Bakery Products	1
(a) Breads	1
(b) Rolls	1
(c) Quick rolls	1
(d) Doughnuts	1
(e) Cream Pies	1
(f) Fruit Pies	1
(g) Cakes and Cookies	1
(h) Icings and Frostings	1
4. Serving Techniques	
a. Arrange and decorate food according to available equipment and products	x
b. Place food on	
(1) Serving counters	x
(2) Dining room tables	x

(3) Banquet tables	x
c. Carve meats and poultry for individual servings	2A
d. Apply sauces, gravies and/or garnishes to food	2A
e. Serve food in portions as directed	x
5. Maintain Kitchen Utensils and Equipment	
a. Clean and maintain	
(1) Knives and cleaver	3
(2) Cutting boards and wood topped cook tables	3
(3) Mixers	3
b. Clean work area, equipment and utensils, segregate and remove garbage, and steam clean or hose garbage containers	3
6. Supply Requisition and Storage Procedure	
a. Determine type and quantity of food stuffs to order	x
b. Prepare and submit requisitions for food stuffs as required	x
c. Return unused food stuffs to proper storage	3
d. Regulate refrigerators as required	3
7. Prepare Sandwiches (Variety)	
a. Cold	2A
b. Hot	2A

WELDER

1. Safety	
a. Follow safety procedures when handling oxygen	4
b. Follow safety procedures when handling acetylene	4
c. Store and handle gas cylinders	4
d. Adhere to equipment safety procedures to oxyacetylene and electric welding	4
2. Use Tools and Equipment for Welding and Cutting (oxyacetylene)	
a. Pressure regulators	3
b. Pressure gauges	3
c. Hoses	3
d. Welding torch	3
e. Cutting torch	3
f. Goggles and gloves	4
g. Spark lighters	3
h. Filler rods	3
i. Fluxes	3
3. Welding Steel (oxyacetylene)	
a. Weld steel to accomplish:	
(1) Flat welds	2
(2) Butt welds	2
(3) Flange Butt welds	2

(4) Corner welds	2
(5) Lap welds	2
(6) Fillet welds	2
(7) Horizontal welding techniques	1
(8) Vertical welding techniques	1
(9) Overhead welding techniques	2
(10) Use of Filler Rod	2
4. Perform Pipe and Backhand Welding (oxyacetylene)	
a. Pipe weld (galvanized)	2
b. Backhand techniques	2
5. Fusion Weld Cast Iron (oxyacetylene)	
a. Gray Cast Iron	2
b. Malleable Iron	2
6. Bronze Welding and Silver Brazing (oxyacetylene)	
a. Bronze Welding of:	
(1) Cast iron	1
(2) Copper	1
b. Silver brazing techniques	1
7. Hard Facing (oxyacetylene)	
a. application	2
b. alloy classification	2
c. techniques for hard facing	2
8. Weld Various Metals (oxyacetylene, braze or silver)	
a. copper	2

b. brass	2
c. bronze	2
d. copper-silicon alloys	2
e. lead	2
f. aluminum sheet	2
g. aluminum castings	2
9. Prepare and Use Oxyacetylene Equipment to:	
a. Cut steel plate	2
b. Cut heavy sections	2
c. Cut miscellaneous metals	1
d. Bevel	2
e. Pierce holes	2
f. Cut rivets	2
10. Introduction to Arc Welding	
a. Application	2
b. Types of welding machines	2
c. Welding booths, shields and clothing	2
d. Electrode holders and cables	2
e. Chipping hammers and brushes	2
11. Identify Various Metals Using:	
a. Shape and surface appearance	2
b. Spark test	2
c. Appearance of fracture	2
d. Chisel test	2
e. Magnet test	2

f. File test 2

g. Torch test 2

12. Steel welding (arc)

a. Weld steel using

(1) Carbon electrodes 2

(2) Bare electrodes 2

(3) Casted electrodes 2

(4) Low hydrogen electrodes 2

(5) Miscellaneous electrodes 1

b. Classify electrodes by color markings 2

c. Store electrodes 2

ATTACHMENT #3

Sample Guidelines and Procedures

MAKING AN APPOINTMENT

GUIDELINES

1. When you call, immediately identify yourself; viz., "Hello, my name is ..."

2. State your purpose for calling; "I am calling in regard to ..."

3. (At that point the person you are talking to will start to give you some information or request additional information from you.) You should respond as quickly and as specifically as possible.

4. Be sure to indicate the times you are available for the interview.

5. Have pencil and paper handy so you can write down the time, place, etc. of the interview.

6. If you are unclear about any of the telephone conversation, ask for clarification.

PROCEDURES

1. By (enter date) telephone_______________, at __________ to make an appointment for an interview.

2. The appointment should take place during the times you have arranged to take the course.

3. Plan for the interview to last for two class periods.

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INITIAL INTRODUCTION AT INTERVIEW

GUIDELINES

1. Make your presence known as soon as possible.

2. Immediately identify yourself; viz., "Hello, my name is ____, and I have a 2:00 appointment with Mr. _____."

3. Speak in a pleasant tone. Do not show impatience if you have had to wait.

PROCEDURES

1. Arrive at interview promptly.

2. Introduce yourself.

FILLING OUT THE APPLICATION

GUIDELINES

1. All spaces in the application must be filled out. Leave no spaces blank.

2. If a question does not have an answer or does not relate to you, write "none", "no", or "does not apply (D.N.A.)".

3. The application should give as much information about you as possible that relates to the job. Be sure to include any previous work history with exact dates and places (even if the employment was volunteer work).

PROCEDURES

1. Practice filling out the sample application before going to the interview. (See Attachment #4) Any words that you don't understand, you should look up in the dictionary.

2. Take a ball point pen to the interview (black ink).

3. Fill out the application in pen.

4. Turn the application in to the person who gave it to you as soon as you complete it.

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CARRYING OUT THE INTERVIEW

GUIDELINES

1. Job applicants should avoid mention of personal problems unless it specifically relates to an interviewer's question.

2. Discuss matters related to the job only.

3. Let the employer take the lead in conversation but do not act shy or backward; be firm with all your answers.

4. Be proud of what you have to offer the employer.

5. Ask specific questions about the job: (1) "What are the times I will be working?" (2) "Will I receive credit for this class?" (3) "What job will I be able to get when I complete this class?" Ask anything you think is important to your success in the program.

6. Answer all questions to the best of your ability.

7. Be sure you are properly dressed, clean and neat.

8. Speak in a pleasant tone, do not show impatience if you have had to wait.

PROCEDURES

During the interview you may be asked questions similar to the following:

1. How did you hear about this program? What do you think we do?

2. Exactly what position have you come for training? Why?

3. How much money do you expect to make when you leave school and get this kind of employment?

4. What are the duties and responsibilities of this job?

5. What are the times you will be able to devote to this program's training?

6. I see you have a record of absenteeism. How do you account for this?

7. Other questions that the interviewer may feel necessary.

APPLICATION FOR APPRENTICESHIP

Date..

I hereby make application to serve an apprenticeship in the..

trade, under jurisdiction of..
Name of Joint Apprenticeship Committee

APPLICANT'S PERSONAL IDENTIFICATION RECORD

NAME.. Social Security No.....................

ADDRESS.. Phone No.....................

DATE OF BIRTH.. CITIZEN: Yes.............. No..............

MARRIED.............. SINGLE.............. Number of Dependents..............

PHYSICAL DISABILITIES..

....

FATHER'S NAME AND OCCUPATION..

MILITARY STATUS: VETERAN: Yes.......... No.......... Discharge Date.................... C. No....................

APPLICANT'S SCHOOL EXPERIENCE RECORD

GRADE SCHOOL..
No. of Years Date Finished School City State

JUNIOR HIGH SCHOOL..
No. of Years Date Finished School City State

HIGH SCHOOL..
No. of Years Date Finished School City State

HIGH SCHOOL SUBJECTS 1.................... 2.................... 3....................

ADDITIONAL SCHOOLING..
No. of Years Date Finished School City State

SUBJECTS 1.................... 2.................... 3....................

APPLICANT'S WORK EXPERIENCE

List the name and address of each employer for whom you have worked, including periods of military service. Please begin by listing present employer in first space.

Firm Name and Address	Nature of Work Done	Date of Employment	No. Months
		From To	
		From To	
		From To	
		From To	

(over)

ATTACHMENT #4

PRACTICE APPLICATION

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CHARACTER REFERENCE OF APPLICANT

Not to include relatives

NAME	ADDRESS	CITY	STATE

State briefly why you would like to become a ______ apprentice.

Applicant's Legal Signature: ______

RECORD OF ACTION TAKEN BY COMMITTEE

DATE OF APTITUDE TEST ______ RESULT ______

APPLICATION ACCEPTED ______ REJECTED ______
Date

REASON FOR REJECTION ______

APPLICATION HELD IN ABEYANCE ______ REASON ______

REMARKS ______

This form prepared by and may be obtained from:

Apprenticeship Division
Department of Labor and Industries
General Administration Bldg.
Olympia, Washington 98501

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Point II states:

"Include procedures to assure that students enrolled in non-profit private schools in the area will have the opportunity to participate in the exemplary project. If there are no non-profit private schools in the area to be served, please indicate."

The following documents explain the provisions that have been made:

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State of Washington
SUPERINTENDENT OF PUBLIC INSTRUCTION
Olympia

March 24, 1970

RECEIVED
MAR 26 1970
SEATTLE PUBLIC SCHOOLS
DEPUTY SUPERINTENDENT

BULLETIN NO. 44-70

TO: School District Superintendents, Elementary and Secondary School Principals, Chairmen of Boards of Directors, and Intermediate School District Superintendents

FROM: Louis Bruno, State Superintendent of Public Instruction

RE: Part-time Attendance of Private School Pupils in Public Schools

Your attention is again invited to section 2 of chapter 217, Laws of 1969, 1st Ex. Sess. (copy enclosed). The rules and regulations promulgated by this office to implement this statute are also enclosed.

This statute authorizes school districts to permit the part-time attendance in public schools of private school students under certain circumstances. The circumstances cited require that the class or classes taken by the private school pupil be unavailable in his private school. They further provide that private school students may enroll in any work-training program approved by the public school district's board of directors. In addition, the law applies only to private school students who would otherwise be eligible for full-time enrollment in the public schools.

One of the chief stumbling blocks to cooperative success in this matter relates to class scheduling. Considerable coordinating efforts by both the private school officials and public school officials are necessary if we are to utilize the shared-time concept allowable under law. The needs of the private school students should be examined and evaluated and the classroom schedules of both public and private schools firmed in such a manner as to give practical effect to a cooperative education program.

The costs of these arrangements must be budgeted by the school district. The 1969 session of the legislature appropriated funds for such cooperative programs; however, since the appropriation is limited, prior approval for the allocation of funds for such cooperative programs must be secured from this office.

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While section 2, chapter 217, is not mandatory, its effective implementation will provide increased learning opportunities for private school pupils in public schools and certainly will enhance respect for and assistance in the public relations and economic areas of common school operation.

Your cooperation and effort in this regard will be sincerely appreciated.

Llewellyn O. Griffith
Consultant
Administrative Services

LOG:nst

Enc.

cc: Private School Administrators

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FROM CHAPTER 217, LAWS OF 1969, FIRST EXTRAORDINARY SESSION

NEW SECTION. Sec. 2. There is added to chapter 28.41 RCW a new section to read as follows:

(1) For purposes of this section, the following definitions shall apply:

(a) "private school student" shall mean any student enrolled full time in a private or private sectarian school;

(b) "school" shall mean any primary, secondary or vocational school;

(c) "school funding authority" shall mean any nonfederal governmental authority which provide moneys to common schools;

(d) "part time student" shall mean and include any student enrolled in a course of instruction in a private or private sectarian school and taking courses at any public school not available in such private or private sectarian school and any student involved in any work training program and taking courses in any public school, which work training program is approved by the school board of the district in which such school is located.

(2) The board of directors of any school district are authorized and may permit the enrollment of any part time students, including the part time enrollment of students involved in any work training program and desirous of taking courses within the district upon the school board's approval of any such work training program and the part time enrollment of any private school student in any school within the district for the purpose of attending a class or classes or a course of instruction if the class, classes, or course of instruction for which the private school student requests enrollment, are unavailable to the student in the private school in which the student is regularly enrolled: PROVIDED, This section shall only apply to private school students who would be otherwise eligible for full time enrollment in the public schools.

(3) The superintendent of public instruction shall recognize the costs to each school district occasioned by enrollment of part time students authorized by subsection (2) and shall include such costs in the "weighting schedule" established pursuant to RCW 28.41-.140. Each school district shall be reimbursed for the costs or a portion thereof, occasioned by attendance of part time students on a part time basis, by the superintendent of public instruction, according to law.

(4) Each school funding authority shall recognize the costs occasioned to each school district by enrollment of part time students authorized by subsection (2), and shall include said costs in funding the activities of said school districts.

(5) The superintendent of public instruction is authorized to adopt rules and regulations to carry out the purposes of this 1969 amendatory act.

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State of Washington
SUPERINTENDENT OF PUBLIC INSTRUCTION
Olympia

Chapter 392-70 WAC

PART-TIME PRIVATE SCHOOL STUDENT ATTENDANCE IN PUBLIC SCHOOL

(Adopted October 30, 1969)

WAC 392-70-020 REGULATORY PROVISIONS RELATING TO SPECIFIC ACTS. The policies, principles, rules and regulations hereinafter set forth, being all of chapter 392-70 WAC relating to part-time private school student attendance in public school, shall govern the administration of chapter 217, Laws of 1969, 1st extraordinary session.

WAC 392-70-030 WORK-TRAINING PROGRAM. Attendance of part-time private school students or students involved in any work-training program shall be at the discretion of a school district board of directors.

WAC 392-70-040 RESIDENT REQUIREMENT. Private school pupils attending a public school as part-time enrollees shall be resident pupils living within the boundaries of the public school district wherein they attend: PROVIDED, That by mutual agreement between directors of the resident district and a nonresident district, private school students may attend a public school within a district not of the pupils' residence.

WAC 392-70-050 WORK-STUDY PROGRAM APPROVAL REQUIRED. Pupils who desire to enroll in work-study programs within a public school may do so only if such work-study programs have been approved under rules adopted by the school district board of directors, and if said pupils would be otherwise eligible for full-time enrollment in the public schools.

WAC 392-70-060 ONLY OFFERINGS UNAVAILABLE IN PRIVATE SCHOOLS APPROVED FOR PRIVATE SCHOOL STUDENT ATTENDANCE IN PUBLIC SCHOOLS--STATE SUPERINTENDENT TO INTERPRET LIBERALLY. Private school pupils may be enrolled as part-time students within a public school only in those classes, courses of instruction, or work-training programs which are unavailable to such private school pupils in the private school in which the student is enrolled: PROVIDED, That the superintendent of public instruction may liberally construe this rule to embrace those services, including but not limited to special education and pupil personnel services, parts of programs and parts of courses which are available to full-time public school students, whether conducted before or after the regular school day.

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WAC 392-70-070 COMPLIANCE WITH STATE SUPERINTENDENT'S RULES PREREQUISITE TO REIMBURSEMENT OF COSTS. School districts shall evidence compliance with rules and regulations of the superintendent of public instruction herein in this chapter set forth as prerequisite to reimbursement of costs pursuant to RCW 28.41.140.

WAC 392-70-090 STATE SUPERINTENDENT TO RECOGNIZE ADDITIONAL COSTS TO SCHOOL DISTRICTS. The superintendent of public instruction shall recognize the additional costs to each school district occasioned by enrollment of part-time students under this chapter and shall reimburse said district or districts in part or in whole for such costs.

WAC 392-70-100 SCHOOL DISTRICT TO SUBMIT COST REPORT. The school district shall recognize and set forth the costs occasioned by the enrollment of part-time students and provide the same to the superintendent of public instruction on forms provided by the state superintendent.

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ADDENDUM F

ADDENDUM TO PROPOSAL NUMBER 1-361-0168 - THIRD PARTY EVALUATION

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SEATTLE PUBLIC SCHOOLS CONTRACT
FOR EVALUATIVE SERVICES FOR
THE GARFIELD EXEMPLARY PROGRAM

THIS AGREEMENT is made by and between SEATTLE PUBLIC SCHOOL DISTRICT NO. 1, King County, Washington hereinafter called "District", and University Information Systems hereinafter called "Contractor",

WITNESSETH:

WHEREAS, the Congress of the United States of America by the enactment of the Vocational Education Act of 1963, as amended by the Vocational Education Amendments of 1968 and more particularly by Part D thereof, has provided for grants of Federal funds to school districts for the purpose of designing programs and projects in vocational education, and

WHEREAS, the District desires in connection with such a grant to secure the services of the Contractor,

NOW THEREFORE, in consideration of the mutual covenants hereinafter contained, it is hereby agreed as follows:

1. All provisions hereof are governed by and subject to the above -- identified congressional enactment or official rules or regulations promulgated in connection therewith, and if this agreement is in any way ambiguous or inconsistent with said enactment or official rules or regulations the provisions of the latter shall supplement or supersede this agreement and be observed by the parties hereto.

2. The Director of the Garfield Exemplary Program (Grant No. OEG-0-71-1171[361]) has developed the first year objectives and plans of the program and these are shown as Addendum F of the Proposal. The duties and responsibilities of the Contractor will be as follows:

a. Determine the extent to which the first year objectives and plans of the program as shown in Addendum F of the Proposal have been accomplished.

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b. Determine what factors precluded or enabled the accomplishment of these objectives and ideas. .

c. The Contractor will coordinate his activities with the Director of the Program in relation to Sections 2(a) and (b) hereinabove.

d. The Contractor will submit his first year evaluations to the Director of the Program by not later than December 14, 1971, the last day of the first year of the Program.

e. The Contractor will keep in mind while performing his evaluative duties and responsibilities that the Program's first year period is from December 15, 1970 through December 14, 1971, but the Federal Funding Grant is from March 5, 1971 through December 14, 1971. The Grant was awarded on March 5, 1971.

f. The Contractor will limit his activities to evaluating the plans and objectives as developed by the Director of the Program as shown in Addendum F.

3. The District shall pay the Contractor an amount not to exceed Three Thousand and no/100 Dollars ($3,000.00) as follows:

a. Two Thousand Five Hundred and no/100 Dollars ($2,500.00) upon completion and presentation of the first draft of the duties and responsibilities as described in Section 2 hereinabove.

b. Five Hundred and no/100 Dollars ($500.00) upon presentation of a final copy of the duties and responsibilities as described in Section 2 hereinabove.

4. The Contractor's services in fulfillment of his duties and responsibilities shall be rendered during the period from June 14, 1971 to December 14, 1971,

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payment for which shall be made by the District to the Contractor in the amounts as described in Section 3 hereinabove within twenty (20) days of the presentation of a statement to the District by the Contractor. The Program Director will indicate on the Contractor's statement that the Contractor's duties and responsibilities have been accomplished and that payment is due the Contractor. The Contractor will submit his final statement to the District no later than December 14, 1971.

5. The Contractor shall apply his best efforts to the performance of the duties and responsibilities in Section 2 hereinabove and the District shall pay the Contractor only for those services actually rendered under the Contract.

6. Termination or Postponement. By five day prior written notice either party may terminate or postpone this Contract, however, the District agrees to reimburse the Contractor for all work satisfactorily completed to the point of termination or postponement; and Contractor agrees to surrender all work and construction materials in his possession at that time in the event this agreement is terminated or postponed.

7. The Contractor will comply with Title VI of the Civil Rights Act of 1964 (P.L. 88-352) and all requirements imposed by or pursuant to the regulations of the Department of Health, Education and Welfare and those of the District.

8. Any changes in this Contract must be mutually agreeable to both parties hereto and shall be an Addendum to the Contract.

9. This Contract in its entirety will become a part of Addendum F of the Proposal.

10. The Contractor's evaluative material developed in completing his duties and responsibilities as per this Contract becomes the property of the District.

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DATED this 14TH day of JU[illegible], 1971

Seattle Public School District 1
King County, Washington

BY: Olaf Kvamme
Olaf Kvamme
Director of Speci[illegible]grams

DATED this 14TH day of JUN[illegible], 1971

Seattle Public School District
King County, Washington

BY: Roland N. Patterson
Roland N. Patterso
Assistant Superin[illegible]nt
Central Region

DATED this 14TH day of JU[illegible], 1971

University Information Systems
King County, Washington

BY: Ulysses Rowell Jr
Contractor's Name

ULYSSES ROWELL JR SENIOR PART
Contractor's Name d Title
(Please Print)

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The first year objectives and plans of the Garfield Exemplary Program are as follows:

1. To plan and develop limited operation of a Food Education and Service Training Program (FEAST).

2. To plan and develop limited operation of an Auto Service Program.

3. To plan and develop limited operation of a Construction Program.

4. To plan and develop limited operation of a Welding Program.

5. To establish "technical advisory groups" in the skill areas of FEAST, Auto Service, Construction, and Welding.

6. To individualize the curriculum for each student by providing courses which emphasize updated job skills, which are stated behaviorally, and with appropriate sequence.

7. To provide inservice training for the staff members on the methods of developing Learning Activity Packages (LAP).

8. To enroll one-fourth of the student body or 250 students in an occupational development program.

9. To decrease absenteeism of the 250 students or one-fourth of the student body by 20%.

10. To change the attitude of 250 students or one-fourth of the student body toward the school.

11. Specific to those Occupational Development Program students with a g.p.a. less than 2.0.

    Assumptions:

    1. Occupational Development Program enrollment g.p.a. will be less than 2.0,
    2. Student must remain in the program for a minimum of one (1) semester,

    11a. A 50% increase in semester g.p.a. per academic area will occur as compared to the Occupational Development Program enrollment base line cumulative g.p.a. per academic area,

    11b. Provided the student continued enrollment in the Occupational Development Program, the 50% increase in academic area g.p.a, as compared to the enrollment base line g.p.a, will be maintained throughout the students enrollment in the Occupational Development Program.

12. To develop linkage between the middle school program and the high school occupation development program.

13. To develop at least two work opportunity instructional areas.

PREREQUISITES AND BEHAVIORAL OBJECTIVES
FOR COURSES TAUGHT AT
GARFIELD HIGH SCHOOL

BY GARFIELD STAFF

HOWARD WHITE, PRINCIPAL

MARVINIA HUNTER, CURRICULUM COORDINATOR

DR. LOUIS WILDMAN, CONTRIBUTING EDITOR

PREREQUISITES AND PERFORMANCE OBJECTIVES OF THE GARFIELD HIGH SCHOOL CURRICULUM

Introduction

Most freshmen entering Garfield High in the Fall of 1971 will graduate in the Spring of 1975. By 1980 they will have established themselves with a career, completing occupational training, or will have just completed their undergraduate college education, entering a society characterized by automation, necessary international order, participatory decision making, new electronic technologies that replace movement of persons by movement of messages, ecological dangers, breakthroughs in medicine, and the unforeseen. All agree that the world is changing at an ever-accelerating pace. This is our future. The administration and faculty of Garfield and the Central Area community have taken very seriously the responsibility of preparing young people for that future. In a free society the commitments of membership must be rooted in understanding.

For these reasons, Garfield High School's requirements surpass the state minimum level. The 1975 Garfield High School graduate will have completed both those minimum performance level objectives which the faculty feels are necessary for effective citizenship (general education) and a saleable skill, hopefully, and/or those performance objectives necessary for successful college work.

The faculty at Garfield High School, in an attempt to satisfy the needs of all of its students, has made provision for graduation irrespective of their career preference. Parents will be asked in each instance, however, to approve the course of study that their sons and daughters seek to pursue. Since our society is college oriented, we are providing below a suggested college preparation program in order to assist those interested in making decisions. We urge the parent and student to review the Career Opportunities Program in conjunction with the college preparatory program in order to ensure intelligent decisions. Please be reminded that this is not an either/or situation.

Suggested College Level Preparation Program

Art and/or Music: 2 credits

Lab. Science: 6 credits, including Biology I and II, Chemistry I and II, or Physics I and II

Language Arts: 8 credits including Language Arts 9A and 9B, Language Arts 10A and 10B

Another Language: 6 credits of a Foreign Language or 2 credits of Computer Mathematics I and II

Math: 8 credits including Algebra I and II, Geometry I and II, Algebra-Trigonometry I and II, Math Analysis I and II

Occupational Education: 2 credits (except for certain specified occupational areas)

Physical Education: 7 credits including Health Education I

Social Studies: 6 credits including Introduction to the Social Sciences I and II (formerly Social Sciences and You), U. S. Government (Social Sciences and the World), U. S. History I and II and Contemporary Problems I and II.

Electives: 19 - 23 credits

Total Credits: 64

Length of Attendance: 8 semesters

Graduation Requirements

Art and/or Music: 2 credits

Lab Science: 2 credits including either Biology I and II, Chemistry I and II or Physics I and II

Language Arts: 7 credits including Language Arts 9A and 9B, Language Arts 10A and 10B

Math: 2 credits including Algebra I and II

Occupational Education: 2 credits (except for certain specified occupational areas)

Physical Education: 7 credits including Health Education I

Social Studies: 6 credits including Introduction to the Social Sciences I and II (formerly Social Sciences and You), U. S. History I and II and Contemporary Problems I and II

Electives: 28 credits

Total Credits: 56

Length of Attendance: 8 semesters

The 1971-72 school year is divided into two semesters lasting respectively from September 1, 1971 to January 26, 1972 and from January 27, 1972 to June 8, 1972. Students will earn one credit upon passing one course, one semester in length, meeting for one block of time or approximately 80 minutes every other school day.

Students may or may not start with the specific course requirement listed depending upon their achievement level. By graduation, however, the specific course requirements must be fulfilled.

Individual Programs

A student may also plan his own high school education with the consent of his parents, approval of his counselor, approval of a faculty committee concerned with graduation requirements and approval of the principal. This faculty committee will evaluate individual programs at the request of the student's counselor in due consideration of state laws and the philosophy of Garfield High School. Approval at each level will be granted only after serious consideration of curricular content in terms of the proposal's general education, saleable skill, and college preparation components, consideration of the proposal's appropriateness for the student and consideration of the high school's capability to provide this alternative plan.

Organization of This Volume:

Included herein are the prerequisites and behavioral objectives for each course taught at Garfield High School.

The Table of Contents indicates the order of presentation.

Supplementary appendixes include additional pertinent information such as course procedures, units, tasks and materials.

CHAPTER 10: CAREER OPPORTUNITIES PROGRAM

The Career Opportunities Program is part of a coordinated education plan which begins at the middle school level with orientation into the world of work. It continues following career cluster courses, job placement and follow-up, i.e., the placement of an employable individual, whether the "placement" be a job, or result in continued education at the college level.

The Garfield faculty has established career areas and job clusters exemplified in work centers both on and off campus, all of which provide ample opportunities for students to explore and develop their talents and capabilities and to engage in on-the-job training.

Technical and advisory groups composed of community, school, labor and management experts provide (a) help in specifying job skills and career areas, (b) identifying potential job opportunities, (c) curriculum and (d) help in developing a program for eliminating racial discrimination in job placement in each of the career areas.

CAREER OPPORTUNITY LAB AND WORKSHOP *(1 Credit)*

Insecurities and lack of knowledge about the professional world seriously impinge upon a student's developmental process. This course enables students to become familiar with the major job clusters within the world of work, and to make a tentative choice of a career area. Occupational clusters are identified in terms of "type" and investigated in terms of predictable future needs based on like jobs today. At least one course offering in the Career Opportunity Program is closely related to each of the following job clusters: materials and processes, energy and propulsion, communication and personal services. A short workshop, included within this course, using "on-the-job" work centers enables the student to get a feel for his career choice and need for preparatory courses.

The following tables list illustrative job titles within major career clusters and indicate specific Career Opportunity Program (COP) courses within each area.

MATERIALS AND PROCESSES CAREER CLUSTER

Semi-Skilled	Skilled	Technical	Professional
Machine Operator	Machinist	Machine Tool Technician	Industrial Engineer
Riveter	Patternmaker	Tape Control Technician	Metallurgist-Microanalyst
Assembler	Welder	Fabrication Technician	Structural Architect
Metal Finisher	Sheetmetal Man	Metallurgy Technician	Landscape Architect
Burner	Pipefitter	Wood Products Technician	Physicist
Construction Laborer	Carpenter	Concrete Technician	Chemist
Farm Hand	Landscape Gardener	Oceanographer	
Garden Equipment Operator	Cement Worker	Landscape Planner-Technician	
Chemical Process Operator	Bricklayer	Park Foreman	
	Plasterer	Ceramics Foreman	

Courses in Career Opportunity Program Related to This Career Cluster

Carpentry Welding	Carpentry Salesperson	Welding	Biology III and IV, Lab Assistant and Oral Health Aide Draftsman

NOTE: The job titles listed are not inclusive but are representative

ENERGY AND PROPULSION CAREER CLUSTER

Semi-Skilled	Skilled	Technical	Professional
Assembler Gas Station Operator Vehicle Driver Parts Chaser Airplane Washer Counterman Oiler Solderer Used Car Porter Ordinary Seaman	Automotive Mechanic Auto Body Repairman Outboard Engine Repairman Air Frame Mechanic Power Plant Mechanic Office Machine Repairman Refrigeration Mechanic Electrician Electronics Repairman Able-bodied Seaman	Automotive Techncian Marine Technician Meteorology Technician Pilot Flight Engineer Flight Inspector Instrument Technician Power Plant Technician Electronic Technician Ship's Officer	Electrical-Electronic Engineer Communications Engineer Automotive Engineer Aeronautical Engineer Marine Engineer Atomic Power Engineer

Courses in Career Opportunity Program Related to This Career Cluster

Service Station Attendant Welding	Service Station Attendant Marine Engines Electrical Work	Service Station Attendant Electrical Work	Service Station Attendant Electrical Work Draftsman Biology III and IV, Lab Assistant and Oral Health Aide

NOTE: The job titles listed are not inclusive but are representative

PERSONAL SERVICES CAREER CLUSTER

Semi-Skilled	Skilled	Technical	Professional
Food Process Worker Waiter-Waitress Custodian Orderly Nurses' Aide Animal Caretaker Pressman-Spotter Postal Clerk Usher Watchman	Pastry Chef Stewardess Housekeeper Practical Nurse Cosmetologist Dressmaker Dry Cleaner Sales Person Policeman Fireman	Chef Restaurant Manager Hotel-Motel Manager Medical Technologist Nurse Garment Designer Buyer Sales Engineer Manufacturer's Representative Actor-Musician	Home Economist Registered Nurse Teacher Dentist Physician Social Worker
Courses in Career Opportunity Program Related to			
Child Care Biology III and IV, Lab Assistant and Oral Health Aid Health Occupations Dry Cleaning FEAST Courses	Child Care Biology III and IV, Lab Assistant and Oral Health Aide Health Occupations Sewing For Profit Cosmetology Salesperson FEAST Courses	Child Care Biology III and IV, Lab Assistant and Oral Health Aide Health Occupations Sewing For Profit Salesperson FEAST Courses	Child Care Biology III and IV, Lab Assistant and Oral Health Aide Health Occupations FEAST Courses

NOTE: The job titles listed are not inclusive but are representative

COMMUNICATIONS CAREER CLUSTER

Semi-Skilled	Skilled	Technical	Professional
Silk Screen Operator	Printer	Photo Engraver	Printing Manager
Print Developer	Photographer	Paper Technician	Visual Communicator
Book Binder	Copy Writer	Technical Writer	Process Engineer
Duplicating Machine Operator	Draftsman	Translator	Advertising Consultant
Blueprint Machine Operator	Sign Painter	Reproduction Technician	Artist
Records Keeper	Window Decorator	Interior Designer	Writer
Production Painter	Supply Salesman	Commercial Artist	
Mail Clerk	Bookkeeper	Programmer	
Typist	Teller	Accountant	
Clerk	Stenographer	Bank Officer	
Courses in Career Opportunity Program Related to This Career Cluster			
Radio and T.V.	Draftsman Salesperson Radio and T.V.	Salesperson Radio and T.V.	Draftsman Salesperson Radio and T.V.

NOTE: The job titles listed are not inclusive but are representative

Behavioral Objectives:

The student will:

1. Identify five specific jobs, stating each vocation's major functions and responsibilities, within each of the following career clusters: (a) Materials and Processes, (b) Energy and Propulsion, (c) Communication and (d) Personal Services.
2. Tentatively choose one career cluster.
3. Demonstrate some elementary skill within the chosen career.
4. Recall at least ten local establishments where people work within the chosen career area, stating practitioner's educational qualifications.
5. Recall at least five apprenticeship type programs and relate steps necessary to begin and complete the program.
6. Describe respective roles of owners, management, labor and employees within the chosen career area.
7. Select courses necessary to fulfill skill requirements within the chosen career area during high school.
8. List primary functions and specific uses of money derived from property, sales and income taxes.
9. State requirements necessary to keep a job, education necessary to keep up to date within the career area, and organizations or individuals currently working on research to improve the output or service of the student's chosen career.

CARPENTRY I AND II *(2 Credits)*

Prerequisites:

1. Students must be willing to work under extreme environments.
2. Students must be able to perform basic arithmetic skills and be acquainted with basic units of measurement: inches, feet, degrees, etc.
3. Students must be physically fit and not have physical handicaps such as to prevent completion of work.
4. Students must be broadminded and not have biases or preju-

dices so strong as to prevent interaction with the public.

Behavioral Objectives:

When a student completes this course:

A. He will have the know how to do suitable work while serving his apprenticeship. Tasks he will perform working with a journeyman include: cut different sizes of material for the journeyman when needed, keep the work area in good shape by cleaning when necessary, watch closely what he is doing at all times in order to learn the trade, erect scaffolding, help set forms.

B. Each student will show how to go about getting a job doing this type of work.

C. The student will demonstrate safe working habits, working with tools, equipment, machines and materials.

D. The student will show the importance of (a) reliability - to be trusted on the job - by doing the job as instructed (correctly), getting to work on time, (b) loyalty - by being courteous and understanding toward others, includint the employer, supervisor and foreman, doing the job willingly, willing to take advice and by not being quick to jump to conclusions or fly off the handle when something goes wrong.

E. The student will complete a given written application for a carpentry job, he will present a resume, take oral interviews and be properly groomed when seeking employment.

F. The student will know the expected duties of each of the following positions:

    1. Owner of property
    2. Contractor - totally in charge of all contracts between the owner and himself plus subcontractors of total or complete jobs.
    3. Superintendent
    4. Foreman
    5. Group lead man
    6. Carpenter (rough and finish)
    7. Drywaller
    8. Plasterer
    9. Lather
    10. Painter
    11. Cement Finisher
    12. Mason
    13. Laborer

G. The student will know how the construction trade is organized. He will state the respective functions of labor unions, standards which have to be met by F.H.A., state and city standards and building codes.

H. The student will solve the following construction problems:

1. Locate and stake out a building on a lot 60' x 120' using the set backs 5 feet from the side of the lot facing the east side and using 21' set back from the front of the lot facing the north.

2. Lay out and set up batterboards for a small house 20' x 40' on this lot 60' x 120' in three hours.

3. Build a form for the foundation of a house 20' x 40' just the corner of section 6'0" long each way.

4. Draw a cross section of the foundation and girder layout fitting together for the house 20' x 40'.

5. Draw an elevation view of the house showing the framework for one window and one door only.

6. Write in 40 words or less why reinforcing steel is used in the footings of a building such as an apartment building.

7. Draw a diagram showing the framework of a gable roof and show the hip roof also, on one corner only.

8. Install one window, one door with the hardware complete in two hours.

9. Install the sheathing on the roof of building 20' x 40' in 16 hours.

10. Install weather stripping around door in 30 minutes.

11. Set up builder level and give the reading for two sections of the batter boards which are set up on the field by the fence next to the football field, in 20 minutes.

12. Using the 100 foot steel tape, measure and mark off the 20' x 40' size of a house on a lot 60' x 120', and square up the building.

13. Install 1" x 6" siding on building up to the top plate in eight hours.

COSMETOLOGY AND MEN'S HAIR STYLING *(2 Credits)*

Behavioral Objectives:

1. Shampooing: Given shampoo cape, towel, comb, brush and shampoo, be able to give a complete shampo. Acceptable performance is achieved when hair and scalp are clean.

2. Hair Rinsing: Be able to give a rinse analysis. Upon completion of analysis, perform hair rinse, given cape, towels, comb, applicator bottles and proper rinse solution. Acceptable performance is achieved when student can perform complete rinse process in 15 to 20 minutes.

3. Hair Shaping: Given scissors, razor, comb, towel, clippies, be able to section hair and execute hair cut according to facial contour, head shape and desired style. Acceptable performance is achieved when the client is satisfied with results.

4. Finger Waving: Given manequin, comb and setting lotion, be able to successfully form finger wave crown. Performance is acceptable when student can complete crown area in 15 to 20 minutes.

5. Hair Styling: Given scissors, comb and brush, be able to shape and style a client's hair to her satisfaction. This is achieved by taking into consideration facial contour, hair color and texture. Process is to be completed in 25 to 30 minutes. Acceptable performance is achieved when the client is pleased with style.

6. Cold Waving: Given shampoo cape, brush, comb, cold wave rods, end papers and cold wave kit, be able to give hair and scalp analysis, and wrap permanent following the manufacturer's directions. Performance is considered acceptable when test curls achieve proper curl, wave and body.

7. Manicuring: Given manicuring kit, be able to prepare patron and perform a successful manicure using colored polish in 20 to 30 minutes. Acceptable performance is measured by the overall appearance of the client's hands following manicure.

8. Scalp Treatments: Be able to analyze scalp and hair for conditional signs, and complaints to be treated. Given scalp treatment solution, perform complete process in 20 to 30 minutes. Acceptable performance is measured by removal of conditions or the improvment of the conditions.

9. Facial Make-up: Given make-up kit, be able to analyze and give proper make-up treatment taking into consideration facial contour, facial tone and texture. Acceptable performance is achieved when client is satisfied with results of operation.

10. Hair Coloring: Be able to analyze the hair and scalp. Given comb, brush, towel and coloring kit, be able to select the proper toning and apply as directed by manufacturer. Acceptable performance is achieved when the outcome is the proper color desired.

11. Facial Treatments: Be able to give skin analysis. Given creams, astringents, lotion, facial masks, be able to give a facial treatment as needed. Acceptable performance is achieved when the student can display four out of five manipulations used to stimulate the various parts of the facial muscles. The student should be able to perform this muscles operation in 35 to 45 minutes.

12. Hair Pressing: Given towel, cape, pressing creams, combs and pressing combs and stove, be able to press over curly hair. Performance is acceptable when hair loses sufficient curl to become straight to the satisfaction of the customer.

13. Thermal Curling and Waving: Given comb, clips and necessary curling irons, be able to curl pressed or straight hair into desired styling pattern. Acceptable performance is achieved when patron is satisfied with results.

14. Chemical Hair Relaxing: Given cape, neck strips, combs, towels and a hair relaxing kit, be able to give a complete hair and scalp analysis and skin test. Be able to perform the complete straightening process following the manufacturer's directions. Acceptable performance is achieved when the hair becomes straight and remains in good condition. Performance time: 45 minutes to an hour.

15. Sanitizing With Disinfectants: Given Formalin Solution, water containers and soap, be able to wash implements in

soap and water. Prepare disinfectant solution and sanitize combs and brushes.

16. Superfluous Hair Removal: Determine method of removal to be used. Be able to give a skin test. Be able to use dipilatory according to the manufacturer's directions. Given timer, dipilatory cream kit, capes, towels and protection creams for the skin, perform removal in 45 minutes to an hour. Maximum performance is defined by the lack of skin burn or irritation after hair removal.

17. Styling of Wigs: Given rollers, wig fluid, pins and clippies, and styling block, be able to set and style wig taking into consideration color of wig, and facial contour. Acceptable performance is indicated when the patron is satisfied with styling and cleaning.

18. Men's Hair Styling: Note: Much of this material has already been covered above pertinent to the care and treatment of hair, both for men and women. Herein are objectives which are unique to men's hair styling. Men students will be used as subjects for this work.

    a. Shampooing: Appropriate techniques depend upon the texture of the hair, as indicated above. The only difference pertains to the choice of products. Students will know that whereas some products are labeled "for men only", this is merely a label and does not influence choice of the appropriate product.

    b. Conditioning: This depends upon the condition (dandruff, etc.) and texture of the hair. The product used is based upon specific procedures of hair analysis.

    c. Styling: Students will know and be able to recognize the four basic facial types. Students will have a repertoire of hair styles for each basic facial type.

19. Razor, Scissor and Clipper Cutting Men's Hair:

    a. Razor Cutting: Given a razor with a safety guard and comb equipment, the student will dampen the hair. Students will be given specific hair styles and be expected to copy them with accuracy judged by the teacher who looks at taper, hair length and neck line, among other subtle facets to this art.

    b. Scissor Cutting: Same as razor cutting except that the hair is not dampened and the student will use scissors and/or thinning shears.

c. Clipper Cutting: Same as razor cutting except that the hair is not dampened and the student will use clippers.

DRY CLEANING *(2 Credits)*

Prerequisites:

1. He must have a desire to work and must be able to work in warm conditions (up to 94° Fahrenheit and indoors).

2. He must be physically fit and have the ability to use the tools of the industry, such as the finishing machine and spotting equipment.

3. He must know the basic colors (the student cannot be color blind).

4. He must be free from prejudices that would prevent him from being courteous to the customers.

Behavioral Objectives:

I. Counter Work

A. A student will be expected to wait on the counter, speak pleasantly to the customers, write the invoices correctly, use the adding machine, use and operate the cash register, make change, mark clothes and tag them correctly.

B. Separate clothes to be cleaned. A student, given 100 pounds of clothes, will separate them for cleaning according to color.

C. Searching and turning pockets. Students will be able to search pockets, correctly, in a routine way, knowing where to look for secret pockets.

D. Marking and tagging clothes. Students will be given 10 bundles of clothes and will be expected to mark and tag them. Marking and tagging requires concentration and students must do this taking no more than 5 minutes per average bundle.

E. Assembling clothes. Students will be given 10 invoice tickets and be required to assemble 10 lots together, filed away on the storage rack.

II. Dry Cleaning Work

A. All students will be required to operate a cleaning machine. They will know how to turn the machine on and off, know how long to run a load of cleaning, how long to extract a load and how to take a load out of the machine for drying.

III. Steam Cleaning Work

A. Steam cleaning garments. A student, given pants, skirts and dresses, will hand finish correctly, in the process of steam cleaning, and resize the garment so that they will have their same body as before they were steam cleaned.

IV. Finishing Work

A. Finishing on steam press. Given pants, slacks, skirts, shifts and coat jackets, students will finish them on a steam press in accordance with professional standards.

DRAFTING *(1 Credit)*

The Technical Draftsman uses the tools and techniques of the profession to prepare complete working drawings - plates, elevation, views, details, specifications and notes. He not only transmits ideas and designs to paper, but repares guidelines for the construction of objects, lists materials required, and reads and interprets blueprints prepared by others. Draftsmen usually work in large, well lighted offices and use many types of pencils, triangles, T-squares, scales, drafting machines and blueprint machines.

Prerequisites:

1. The student should have the patience necessary to work from an abstract idea to a concrete product.

2. He should have reasonably good vision naturally or wear corrective lenses that make it possible for him to see small details.

3. He should have reasonable dexterity as drafting requires extensive sketching and other pencil techniques.

4. He should be able to look at and work on papers of light to white colors without experiencing eye strain or headaches.

5. He should have a basic understanding of mathematics, so that he can use common and decimal fractions.

6. He should have the inclination to set fairly high standards of workmanship for himself, for drafting requires a high degree of accuracy and neatness.

7. He should have the patience to work to solve problems either alone or with special help from another student or from the instructor.

8. He should have enough emotional stability to work quietly in a room with other students, for if he finds it impossible to work in such an atmosphere, other students who are trying to concentrate will be greatly disturbed.

Behavioral Objectives:

I. Seminar Participation

The student is expected to understand the social implications of this course. Given a group composed of parents, other students, tradesmen and factory representatives forming a discussion group, the student is expected to be able to contribute ideas on the following topics:

A. The abilities and interests of people engaged in drafting

B. The definition of drafting

C. The personnel organization of a typical drafting or engineering office

D. Elements needed to improve the Garfield High School drafting program.

II. Use and Care of Instruments

Given an assignment in Drafting, the student is expected to correctly use the following instruments and supplies in making the drawing:

A. Pencils and sharpeners

B. T-Square

C. Drawing board

D. Paper and tape

E. Architect's scale

F. 30-60 and 45 degree triangles, ellipse

G. Drafting machines

H. Pencils, 2H through cH

I. Compass and dividers

J. Eraser and eraser sheild

K. Power and drafting brush

III. Alphabet of Lines

Given an assignment to identify by appearance only, the student should correctly identify the following lines:

A. Border line

B. Object outline

C. Construction lines

D. Hidden lines

E. Extension lines

F. Center lines

G. Dimension lines

H. Section lines

IV. Freehand Sketching

Given an assignment to use the proper techniques in sketching an object, the student should produce a clear and accurate pictorial or two view sketch of an assigned problem. The lines should conform to classroom standards as to:

A. Line weight

B. Correctness

C. Right placement of views

D. Clarity of detail

The sketch should be complete enough to serve as a working drawing from which a list of parts might be taken.

V. Geometric Constructions

The student should be able to use his drafting equipment to construct commonly seen geometric shapes including hexagons, octagons, pyramids, five pointed stars, ellipses and arcs.

VI. Isometric and Orthographic Projections

Two necessary and important ways of creating a visual picture of an object are isometric drawing and orthographic projection. Isometric drawing enables the draftsman to artistically convey a 3-dimensional object in one unified, pictorial view. Orthographic projection, however, does not present a unified view, but three separate views, top, front and side.

Given a combination of not more than six standard geometrical shapes such as cubes, rectangles, etc., in an orthographic projection, the student will transform the orthographic projection into an isometric drawing. And, given an isometric drawing, the student will convert it into an orthographic projection.

VII. Sectional Views

Given a machine part, the student should correctly:

A. Draw a full section

B. Draw a resolved section

C. Draw a half section

D. Draw a quarter section

E. Draw an offset section

VIII. Shop Processes

After a visit to a machine shop (Metal Shop at Garfield), the student should describe the meaning of such terms as:

A. Casting

B. Forging

C. Welding

D. Grinding

E. Machining

F. Counterbore

G. Countersink

H. Chamfer

I. Ream

J. Racing

K. Turning

L. Knurling

M. Broaching

N. Heat Treating

O. Annealing

P. Normalizing

Q. Fillets

R. Rounds

S. Spotface

SERVICE STATION I AND II (SALES ATTENDANT) *(2 Credits)*

This course provides the student with business, sales and mechanical skills, knowledge and practical experience necessary to obtain work in a service station. While the classwork and homework takes place at the school operated Mobil service station, 901 Rainier Avenue South, the skills gained in meeting the public and selling are not limited in their use to service station work. Experience thereby gained will be of value in many phases of the automotive industry, the nation's largest business.

Prerequisites:

I. Driving ability: For placement after course completion, the student must hold a valid Washington State driver's license. Students, however, do not drive customer cars at the school service station.

II. Parental responsibility: The parent or guardian must assume responsibility for loss and negligent or willful damage by the student to property used by the school in the course of instruction and service station operation, including books, tools, equipment, products, money, uniforms and customer's property.

III. Student insurance: Proection is provided to the student at no cost; enrollment, however, is mandatory and requires the signature of the parent or guardian.

IV. Reading: Price sheets, catalogs and mechanical specifications and instructions are essential to the service station employee. Students must be able to read all but the technical terms contained in these documents prior to course entry. For example, the student must be able to read paragraphs such as the following:

> "Motorists tend to pre-judge the quality of a service station's products and services by the way the station looks. Appearance alone may determine whether or not a motorist chooses to first enter the station. It is less expensive to keep a service station clean, than to lose business because the station is dirty and disorderly."

or:

"In an automobile engine, motion is produced from the pressure created by burning a mixture of air and gasoline vapors. The fuel-and-air mixture is 'trapped' inside an airtight tube, which is fitted with a sliding plug, called a piston, that prevents escape of the gas. The compressed mixture is ignited by an electric spark. The resulting burning causes tremendous heat and expansion of the trapped gasses. The pressure of the expanding gasses pushes the piston down. Movement of the piston powers the automobile.

V. Mathematics: The student must be able to add and subtract money and fractions, measure lengths and angles, and multiply and divide, solving problems involving the pricing of multiple units of a given commodity.

VI. Homework: Each student will be prepared to perform work practice at the school service station during scheduled hours. Time required will average five to eight hours per week, spent early in the morning, after shool in the evening or on weekends.

The student must be prepared to accept outdoor working conditions as they present themselves. Coveralls are provided; however, it is the student's responsibility to provide adequate outer wear and shoes.

Behavioral Objectives:

I. Employability

A. Reliability

1. The student will arrive, prepared to begin work, at the time prescribed for classwork and homework.

2. The student will notify his instructor or work supervisor of a planned absence well in advance of the date. In case of illness or other emergency, he or his parents, will notify the instructor (by leaving a message at the school office: EA 4-9366) in advance of each missed class and the service station (587-4208) in advance of each missed day of scheduled work practice.

3. While on duty or during classroom sessions, the

student will not work on his own car, or that of his family or friends, unless a written assignment has been given in advance by the instructor.

II. Mechanical

The student will recognize, maintain and use the following tools, equipment and instruments:

A. Tools

1. Wrenches in metric and inch sizes
    - a. open end
    - b. combination
    - c. flare nut
    - d. rachet box
    - e. distributor
    - f. ignition
    - g. adjustable and pipe
    - j. socket wrenches and accessories
2. Screw drivers
    - a. straight and offset shank
    - b. straight bit, Phillips bit, clutch head and nut
3. Standard, ignition and point files
4. Manual and impact chisels, punches and sets
5. Plain, gasket and carbon scrapers
6. Hammers
    - a. ball pein
    - b. cross pein
    - c. sledge
    - d. plastic
    - e. leather
    - f. rubber
7. Brushes
    - a. battery terminal and distributor post
    - b. bulb socket
    - c. whitewall

   d. parts
   e. manual and power wire
   f. paint

8. Tire breaker bar

9. Pliers

   a. pipe
   b. slip jaw
   c. diagonal cutting
   d. needle nose
   e. vise grip
   f. high tension
   g. battery
   h. ignition
   i. slip ring
   j. hose clamp
   k. terminal spreader
   l. terminal lifter
   m. combination electrical terminal

10. Gauges

   a. wire and automatic spark plug
   b. tappet and ignition feeler gauges
   c. pocket air gauges

11. Air impact wrench

12. Air hammer

13. Value core remover, thread restorer and valve stem installer

14. Torque wrench

15. Rubber buffers, rolling took and inside rubber rasp

16. Tire plug inserter and tire plug cutter

17. Tire bead expander

18. Power drill and high speed bits, 1/16" and 1/2"

19. High speed bench grinder and stone dresser

20. Brakes
    a. spring puller
    b. retainer spring tool
    c. Bendix brake tool
    d. cylinder clamps and hones

21. Screw starter

22. Hack saw

23. Cleaning tools
    a. scrub brush
    b. toilet bowl brush
    c. push broom
    d. household broom
    e. floor and window squeegees
    f. abrasive sponge
    g. parts cleaning brush

24. Star tire wrench

25. Mechanical fingers and magnetic pickup

26. Inspection mirror

27. Screw extractors

28. Stud puller

29. Straight and curved tin snips

30. Straight, toe and forked pry bars

31. Continuity wired awl

32. Battery filler bulb

33. Filler spouts
    a. oil can
    b. additive
    c. transmission fluid with extender and valve

34. Filter wrenches
    a. band binding
    b. slip-grip
    c. end formed

B. Equipment

1. Gas pump, nozzle with automatic setting
2. Air hose gauges
3. Water hose nozzles
4. Battery filler cans
5. Window sprayers, towel dispensers, hose return wells
6. Air powered tire machine
7. Axel and end jacks
8. Air hoist
9. Industrial vacuum sweeper
10. Oil sump pan and drain pipe
11. Air and hand lubrication guns with attachments
12. Solvent, transmission fluid, gear grease bulk dispensers
13. Wheel bearing packer
14. Spark plug cleaner/tester
15. Creeper board
16. Metal vise
17. 5 lbs. CO_2 and 20 lbs. dry fire extinguishers
18. Bubble and high speed wheel balancers
19. Pressure brake bleeder
20. Master and portable battery changers
21. Ladders
22. One and five quart oil dispensers

23. Cash register
24. Floor safe
25. Credit card machines
26. Telephone credit check machine
27. Tire test tank

C. Instruments

1. Dwell/tach meter
2. Vacuum and fuel pump pressure gauges
3. Compression gauge
4. Timing light
5. Advance meter
6. Wrap around and wired ammeters
7. Dynamic compression tester
8. Midrange tachometer
9. Parade and expanded scope patterns
10. Combination alternator-voltage-regular tester
11. Battery simple load tester
12. Electronic cell tester
13. Battery and anti freeze temperature corrected hydrometers
14. PCV valve tester
15. Neon spark plug and ignition wire testers
16. Exhaust gas analyzer
17. Brake drum and shoe resetting gauge
18. Stethoscope

D. Island Service

The student will routinely service the following:

1. Gas tank filler spout
    a. remove and replace vacuum and pressure caps
    b. remove and replace notched rotary locking caps
    c. reset and start pumps
    d. deliver specified gallonages and dollar amounts of gas
    e. recognize signs of rising fuel level

    f. top off tank
    g. use automatic delivery latches
2. Glass
    a. clean dry glass using dry wiper, paper towels and chamois with spray bottle and abrasive sponge
    b. clean wet glass using soft sponge and hose rinsing
    c. use solvent, gasoline, baking soda and scouring powder to remove special stains
    d. use razor blade scraper and pocket screwdriver to remove paint, tar, etc.
    e. wash mirrors without losing driver's adjustment
    f. Clean wiper blades and handle arms with necessary precautions depending on type
3. Use Under-Hood Five Point Check
    a. check oil level without dripping on car or bending dipstick, interpret dipstick level, accounting for cold engines; insure that short-sticking or oil run up does not occur; locate oil filter holes with vented, sealed and positive breathing covers; remove and replace covers; add oil; distinguish between oil types and obtain proper type from storage.
    b. Identify radiator filler type as pressure overflow, pressure sealed, closed system and non pressure system; check and fill as specified for type; check anti-freeze protection level; check hose clamps and gaskets for leakage.

   - c. fill battery with water, rinse terminals and top
   - d. fill windsheild washer reservoir and add fluid if appropriate
   - e. check engine compartment for leaks, brakage, or other urgent needs

4. Check and fill tires, observe wear and damage and report to driver

5. Perform other minor mechanical tasks when appropriate (attach license plates, check automatic transmission, etc.)

E. Scheduled Services and Minor Repairs

The student shall be able to perform without assistance or guidance the following routine services:

1. Change oil

   - a. warm up engine
   - b. remove plug and drain oil
   - c. replace plug
   - d. remove and clean oil filter cap
   - e. add appropriate oil
   - f. replace filter cap
   - g. change door sticker

2. Change oil filter

   - a. full-flow canister:
     - (1) after draining oil, remove filter with appropriate wrench
     - (2) clean filter seat and threads with solvent and wipe dry
     - (3) select new filter and compare threads and gasket with old filter to insure proper fit
     - (4) lightly oil new gasket
     - (5) screw on filter and hand tighten
     - (6) after refilling oil, run engine at fast idle for five minutes and check for filter leaks
     - (7) change door sticker
   - b. by-pass or full-flow drop-in filter
     - (1) remove cover (and center bolt, pressure plate, and spring, if used)

   - (2) remove filter element or sock
   - (3) clean container and lid
   - (4) replace gasket
   - (5) insert new element or sock
   - (6) reinstall cover and other hardware and tighten to 15 to 20 foot-lbs.
   - (7) change oil
   - (8) run engine at fast idle after replacing filter cap; check for leaks after 5 minutes
   - (9) change door sticker

c. centrifugal or trap filter

   - (1) drain oil
   - (2) remove per manufacturer's specifications
   - (3) clean and check unit and gasket
   - (4) replace gasket if necessary
   - (5) after refilling oil, run engine at fast idle for five minutes and check for leaks
   - (6) change door sticker

3. Lubrication

a. lubrication under car

   - (1) grease gun

      - (a) determine type of grease fitting
      - (b) locate fittings: suspension, steering, linkages, drive shaft
      - (c) wipe each fitting before applying grease
      - (d) lubricate with pressure gun
      - (e) leave a small "cap" of grease over each zerk tip
   - (2) check manual transmission and differential
   - (3) apply rubberlube to bushings
   - (4) check tires, wheel backing plates, etc. for leaks or wear

b. service under hood

   - (1) oil can with 10W oil: generator or alternator, starter, distributor, carburetor linkages
   - (2) water: radiator, battery, windshield washer
   - (3) clean battery terminals and lid

- (4) check steering gearbox (90W gear grease or lube grease) or power steering (ATF)
- (5) check automatic transmission
- (6) check brake fluid
- (7) check air filter
- (8) check fan belts, radiator hoses and oil lines
- (9) use 10W wheel bearing grease and white stick grease on hood catch, hinges and rollers

c. lubricate doors

- (1) use 10W oil on key in locks, clean latch and sticker plate and lube with white stick grease
- (2) use 10W oil on hinge pins and wheel bearing grease on roller cam

d. service inside car

- (1) vacuum and dispose of trash
- (2) empty and clean ash trays
- (3) clean dash board, steering wheel, and kick panels

e. lubricate rear trunk lid as per hood

f. pull one front wheel

- (1) inspect bearings, cup, seal, brake cylinder, brake shoes, brak lining.
- (2) note irregularities and service requrements on job order

g. complete door sticker and replace

4. Change automatic transmission fluid

- a. remove pan, drain and clean gasket services
- b. remove old filter or screen and replace or clean, as required
- c. replace pan with new gasket
- d. torque pan cover bolts (or nuts)
- e. align converter drain plug, remove, drain fluid, reinstall
- f. fill with appropriate fluid, run motor and check level

g. change door sticker

5. Repack front wheel bearings

    a. remove spindle cup, locking device, nut and thrust washer
    b. remove outer bearing
    c. remove wheel and hub
    d. remove seal from hub, if necessary
    e. remove inner bearing
    f. clean and dry bearings. Inspect bearings and replace if necessary (including cup)
    g. repack bearing: students will repack bearings by hand and with a repacking device
    h. clean spindle and hub and lightly grease
    i. reinstall inner bearing and seal
    j. replace hub and wheel
    k. return outer bearing and hardware and torque bearing to proper running attitude
    l. install locking device
    m. spin test wheel
    n. reinstate spindle cup to hub cap
    o. note condition of brakes on job orders
    p. change door sticker

6. Battery

    a. check and restore fluid level
    b. remove clamps and clean, repair or replace as needed
    c. clean terminals and analyze for breakage
    d. clean case and inspect for leaks
    e. determine change level with hydrometer
    f. detect weak cells with hydrometer
    g. use meter to determine charge
    h. use meter and carbon pile to make load test
    i. load test cells to determine weak cells, using carbon pile and automobile systems
    j. perform cell test with electrolytic detector
    k. test to determine battery is receiving a charge
    l. remove hold down devices and battery
    m. replace battery
    n. apply a fast charger and charge
    o. apply a tricle charge and charge
    p. apply a booster charge
    q. fill and activate a new battery
    r. road test a newly activated or recharged battery

7. Tune-Up: The student will perform minor, regular and complete tune-ups, selecting the following procedures as appropriate:

   a. note driver comments
   b. test drive: note idle, race, cruise, climb and lug performance
   c. diagnose engine noise and movement
   d. clean and inspect battery connections
   e. test battery and charge, if needed
   f. observe cranking voltage, boost or charge battery as needed
   g. loosen spark plugs, run engine to remove carbon, remove plugs and compression check each cylinder
   h. perform cylinder leakage tests on weak cylinders
   i. clean or replace and gap spark plugs
   j. inspect high tension cables and primary leads, replace, if necessary
   k. inspect distributor and coil for breakage or misalighnment
   l. perform scope analysis of primary and secondary circuits
   m. replace or refurbish broken points, cap, rotor and condensor
   n. clean and lubricate distributor cam and shaft wiper
   o. set breaker points and reassemble distributor
   p. check firing order
   q. check dwell angle and adjust points, if needed
   r. locate, clean and outline timing mark and plate
   s. use timing light to set timing
   t. check centrifugal advance timing action
   u. check vacuum advance (and retard) timing action
   v. inspect drive belts, adjust to proper tension
   w. test charging system for proper volt/amp output
   x. check dropping resistor for damage
   y. service heat riser valve
   z. check condition of air and gass filters and replace, if necessary
   aa. test action of hot air injection devices
   bb. check PCV valve, air compressor, and other emission control devices, clean passages and replace faulty parts
   cc. test fuel pump pressure through filter
   dd. inspect carburetor for leakage, percolation and backfiring
   ee. treat chemically, clean and install tune-up kit, or install rebuilt carburetor, as needed

- ff. check and adjust float level, high speed idle cam, accelerator pump, and choke, as applicable
- gg. adjust idle speed
- hh. adjust idle mixture
- ii. adjust valves (if applicable and necessary)
- jj. check automatic transmission shifting or clutch action
- kk. change door sticker

8. Brakes

   - a. inspect and analyze front and rear, drum and disc brakes
   - b. adjust brake shoe, disc pad clearances and pedal travel
   - c. adjust parking brakes
   - d. bleed wheel and master cylinders
   - e. remove and reinstall brake shoes and disc pads
   - f. inspect and gauge drums or rotor for wear and determine grinding or replacement needs
   - g. inspect wheel cylinders and determine need for parts
   - h. road test brakes and self adjusters
   - i. diagnose basic brake problems from customer experiences
   - j. rebuild (including honing) wheel and master cylinders

9. Clutch

   - a. diagnose clutch problems from customer comments
   - b. adjust clutch engagement and pedal travel
   - c. service clutch hydraulic slave units, including rebuilding and bleeding if needed

10. Electrical

    - a. replace driving, indicator and convenience lights
    - b. locate and service fuses, fusible links, circuit breakers and flashers
    - c. trace short circuits and disconnect or repair troublesome units

11. Tires and Wheels

    - a. check tires and wheels for lateral and axial out of roundness

b. use visual and water tank tests to locate punctures, breaks and slow leaks
c. use the power tire machine to dismount and remount tubeless and tube type tires
d. repair tubeless tires using inside hot and cold patches, filler cord and plugs
e. repair a tube using hot and cold patches
f. install a boot in a tire
g. remove and reinstall wheels from an auto, including use of manufacturer's jack, removal and reinstallation of fender covers and wheel covers
h. rotate all five wheels on an automobile
i. balance a wheel and tire using a static bubble balancer and an on-the-car, high speed, dynamic balancer
j. using an impact wrench, tighten wheel bolts or lug nuts so that they may be removed with manual wrenches

12. Windshield Wipers

a. inspect and analyze wiper performance and condition of rubber
b. replace refills, blades and arms
c. test arms for pressure
d. service a windshield washer, inspecting for plugged hoses and outlets or leaks

13. Finish and Interior

a. clean the upholstery, dash board and kick panels of an auto; sweep the interior
b. wash and dry the exterior of an auto, including the grill, wheel covers and white sidewalls
c. use cleansers and solvents to remove insects, tar and petroleum stains
d. use chrome and stainless cleansers on the appropriate parts of an auto
e. use cleansers and polishing materials to prepare a car for waxing

14. Fuel System

a. detect fuel leaks throughout the system, repair or replace faulty elements, except gas tank
b. test fuel pump for mechanical action, pressure and delivery rate

c. replace fuel pump
d. remove, inspect and clean or replace fuel filter
e. adjust idle speed, fast idle speed, idle mixture and float level
f. remove sediment, water, etc. from carburetor
g. use in place carburetor cleaner
h. cook and rebuild 1, 2 and 4 barrel carburetors

15. Cooling System (See also Island Services D.3.b.)

a. detect coolant leaks in radiator, hoses, heater coil, block and head
b. recognize symptoms of damaged head, block or head gasket
c. pressure test cooling system and cap
d. drain radiator, block and heater
e. change radiator and heater hoses
f. remove, inspect, analyze and reinstall or replace thermostat and gasket
g. flush radiator using normal and heavy duty cleaners
h. select and add appropriate rust inhibitor, antifreeze, summer coolant, sealer or water pump lubricant
i. flush radiator and block with a pressure flusher

F. Additional Subjects: The following special mechanical skills are available for individual completion by the rapidly advancing student.

1. Tune-Up: Includes the use of electronic auto analyzers, advanced diagnostics, valve grinding and adjustment, compression and bearing problems, electronic ignition.

2. Brakes: Includes work on power assist units, pressure problems, and advanced rebuilding.

3. Electrical: Includes advanced charging and starter diagnostics, generator, alternator and starter rebuild; adjustment and service of regulators, accessory and small motor diagnosis and service; and other special electrical problems.

4. Air Conditioning: System pressure analysis and recharging, removal and replacement of components, and compressor shaft replacement are the main skills taught; service of heating and combination systems is also included.

5. Alignment and Wheel Balancing: Analysis, replacement and adjustment of suspension and steering components, and the use of electronic sensing wheel balancing equipment.

III. Management

A. Business Profitability

1. Define gross profit, net profit, daily profit and investment profit.

2. Given sales prices, cost and overhead as a percentage of total sales, calculate the gross and net profit as a percentage of sales prices, a dollar amount, a percentage of cost (% mark up).

3. Given the time and parts used in a particular job, calculate the gross profit and net profit of job when priced according to flat rate charges and according to time and material charges-

4. Given the operating figures for a station during two months, compare the gross profits, net profits, break-even points, return on investment and return on labor costs for the two months.

B. Security

1. Within thirty seconds, the student will be able to obtain the telephone numbers for the following emergency services: repair, fire, police and medical.

2. Treat confidentially all knowledge of costs, profits, business arrangements, employee problems, names of suppliers and other information associated with the means of conducting business.

3. Know the locations and types of fire extinguishers.

Be able to use each type.

4. Open and close the station in a manner that provides maximum protection from robbery and pilferage; securely close the building at closing and adequately safeguard removable property.

C. Transactions and money handling

1. Customer

   a. at islands: price unit sales, add sales tax to appropriate items, present customer with total and explain items.
   b. inside sales: prepare a work order invoice, price and total parts, labor, add sales tax, present to customer and explain.
   c. collect cash or credit card.
   d. ring up cash sale and select proper change.
   e. make a cash receipt, if needed.
   f. return and count change to customer.
   g. enter costs, tax, total and license plate number on a credit card form. Imprint and insert with card in signature board.
   h. return signature board to customer for signing, collect board and form, return receipt and card to customer.
   i. check credit card validity and obtain authorization code.
   j. complete credit card time payment form and obtain approval.
   k. compare credit cards with reject lists.
   l. order duplicate credit cards for customer.
   m. dispense credit card applications and check for proper information.
   n. tally money in drawers.
   o. "set up" drawers for shift change and strip during use.
   p. read gas pumps and inventory oil stores.
   q. place proper identification on checks, money orders, etc. and reendorse.
   r. check gas pump readings with cash register tape and balance cash and credit cards on hand with stock usage.
   s. receive merchandise and make proper notations, pay from till, if necessary.
   t. record sales of TBA (tires, batteries and accessories), services and labor.

  - u. complete registration form for tires and batteries.
  - v. complete warranty forms for equipment.
  - w. make adjustments on tires, batteries and other warranty sales.

2. Supervision

  - a. identify the preparation, maintenance and repair needs of the station, and assign priorities for fulfilling the needs.
  - b. prevent damaging the businesslike appearance and procedures of the station by restricting social visits to the station and stopping boisterous activities of cusomers.

IV. Sales: The student improves his skills and habits as a sales attendant by developing to the highest degree possible his use of the following techniques.

A. Clean, repair and refurbish facilities and equipment to produce a visually attractive station which suggests that the personnel are efficient and careful.

B. Greeting

1. Be alert to the entry of a new customer to the station.

2. Make the customer quickly aware that he will be waited upon.

3. Move quickly and purposefully to the newly arrived customer.

4. Smile at and make eye contact with each new customer when he first arrives.

5. Friendly greet each customer before beginning service; avoid trite and obvious phrases.

C. Service Prompters

1. Promote full car servicing by the use of motions and encouraging questions.

2. Use positive action phrases to sell items.

3. Show care for the little needs of each car in demonstrated recognition of the driver's interests. For example, point out a loose license plate and offer to repair.

D. Return Invitation

1. After returning the customer's change or credit form, sincerely thank the customer for his business and (if time allows) ask a question that shows real interest in the customer.

2. At the close of conversation tell the customer you value his business and invite him to return.

E. Merchandising

1. Understand the operation, maintenance and products (if applicable) of the following machines and displays.

    a. cigarettes, candy, soda machines
    b. filter racks
    c. bulb and flasher displays
    d. tune-up cabinet
    e. oil rack and empty disposer
    f. tire displays
    g. shelf displays
    h. map and guide book stands
    i. filter cap, PCV valve, seal and other cabinets
    j. tire, radiator hose and fan belt racks

2. Maintain and effectively locate the gasoline price board to gain the advantage of price merchandising.

3. Demonstrate the operation of merchandise (e.g., the difference between a good and a poor shock absorber.)

V. Facilities

A. Areas

1. The student will make a schedule of duties to be performed in the office, service bays, rest rooms, store room, wash rack, waste disposal, lot, pump

island and grounds as required on a monthly, weekly and daily basis. The student will perform, as scheduled, these inspection, cleaning, maintenance and repair duties.

2. The student will evaluate three assigned service stations with regard to their respective facilities.

B. Equipment and Supplies

The student will recognize and apply the appropriate materials for station upkeep and preparation, including:

floor and window squeegees
chamois
window, scrub and toilet bowl brush
push and hand brooms
wet mop and bucket
toilet bowl cleaner
antiseptic solution
general purpose detergent
alkaline solvents
scouring powder
chrome and glass cleaner

VI. Scheduled Work Practice

A. Under supervision and evaluation by school employees, the student will regularly and at specified times, perform practice work at the school service station.

B. The student will incorporate each new skill (as outlined above) as it is learned in class work or in personal progress studies, and will continue to utilize each skill throughout successive scheduled work practices.

C. The student will accomplish 200 to 280 (equivalent to four to six forty eight hour work weeks) hours of scheduled work practice during the year. Work practice is assigned according to individual needs and minimum acceptable experience for job placement.

HEALTH OCCUPATIONS (NURSING AIDE/ORDERLY) I AND II *(2 Credits)*

The Nursing Aide is part of the health care team. She or he must be aware of patient needs and be able to perform some basic skills in taking care of the patient.

Behavioral Objectives:

I. Bladder Irrigation

  A. Determine if retention catheter is open

  B. Cleanse retention catheter

  C. Irrigate the bladder

II. Steam Inhalations

  A. Relieve inflammation to lessen secretions and to relieve coughing.

III. Specimens

  A. Single Urine Specimen

    1. Obtain a clean voided urine specimen

  B. Feces Specimen

    1. Obtain a specimen of feces for laboratory examination

  C. Cultures (Throat, Sputum, Wound, Vaginal, etc.)

    1. Obtain an uncontaminated specimen for bacteriological examination

IV. Comfort and Safety of Patient

  A. Learn causes of discomfort

  B. Practice and improve skill in using various devices that provide mental and physical comfort to the patient.

V. Isolation Technique

  A. Prevent spread of disease organism

B. Protect the patient and those caring for the patient.

VI. Sterile Glove Technique

A. Put on sterilized gloves for the performance of a procedure requiring aseptic technique.

VII. Tube Feeding

A. Administer feed by Levine Tube to patients who are unable to feed themselves.

VIII. Cleansing Enema

A. Relieve constipation

B. Relieve distention or flatulence

C. Cleanse lower bowel

IX. Blood Pressure

A. Determine the patient's blood pressure

B. Note any changes in blood pressure

C. Ascertain the effects of certain drugs or tests

X. Tub Bath

A. Cleanse and refresh the patient

XI. Giving and Removing Bedpan

A. Provide facilities for elimination from bowels and bladder.

XII. Hemiplegic Patients

A. Transfer patient from bed to chair and return to bed

XIII. Assisting with Physical Examinations

A. Assist the doctor with the examination of the patient.

B. Protect the patient from undue exposure and discomfort.

XIV. Patient's Records

A. Give an accurate account of the patient's condition and care received during hospitalization.

B. Furnish a continuous record of in-hospital patient history including evidence that the doctor's orders have been carried out, as a diagnostic aid to the physician and as a legal record for the hospital.

XV. Intake and Output

A. Obtain an accurate account of the patient's total fluid intake and output.

B. Determine whether or not the kidneys function properly.

XVI. Patient AM Care

A. Prepare the patient for breakfast

XVII. Afternoon Care or 4 PM Care

A. Prepare the patient for the evening meal

XVIII. H. S. Or Bedtime Care

A. Prepare the patient for the night

XIX. Mouth Care

A. Clean and freshen the mouth

B. Prevent ulcerations and infections in the mouth

XX. Hot Water Bottle

A. Apply heat locally

XXI. Ice Caps and Ice Collars

A. Apply cold applications locally

XXII. Bed Bath

A. Cleanse the body

B. Stimulate circulation, promote comfort and relaxation for the patient

C. Provide the nurse with the opportunity for observing the patient's physical and mental state

XXIII. Medicated Baths

A. Apply medication to the entire skin surface (used mostly in treatment of dermatities).

XXIV. Sitz Bath

A. Apply moist heat to relieve pain, discomfort

B. Apply moist heat to aid in reducing inflammation and infection in pelvic or rectual region

C. Apply moist heat to facilitate removal of packing

XXV. Temperature Sponge Bath

A. Reduce body temperature and refresh the patient

XXVI. Pulse and Respiration

A. Determine the rate of respiration

B. Determine the pulse rate

XXVII. Body Temperature

A. Determine the temperature of the body by use of a clean, clinical thermometer

XXVIII. Occupied Bed

A. Secure comfort for the patient who occupies the bed

B. Keep lower bedding and top covers firmly in place

C. Protect mattress and covers from unnecessary soiling

D. Make bed look neat, attractive and uniform in appearance

XXIX. Assisting Patients With Meals

A. Nourish the patient who is incapable of feeding himself

B. Arrange the tray so patient may feed himself

FEAST, HOME ECONOMICS *(2 Credits)*

Prerequisites:

I. Junior standing

II. Students must maintain a C average for all classes to stay within the program

III. Students must also be enrolled in FEAST Business Math and FEAST Language Arts

IV. Permission from FEAST faculty

Behavioral Objectives:

I. The student will demonstrate correct basic preparation methods for the food covered in the unit.

A. The student will identify and define terms used in food preparation:

Aging
A la
A la carte
A la goldenrod
A la king
A L'Americaine
A la mode
A la Newburg
Allemande
Ambrosia
Anchovy
Antipasto
Arrowroot
Aspic
Au or aux
Au gratin
Au jus
Au naturel
Aux croutons
Avocado
Baked Alaska
Barbecue
Baste
Batter
Bavarian
Béarnaise
Beat
Beef à la Stroganoff
Bercy
Biscuit
Blanch
Blend
Bisque
Boil
Bombe
Boeuf
Boston Cream Pie
Bouchee
Bordelaise
Bouquet-garni
Bouillabaisse
Bouillon
Breading
Braise
Brandy
Broth
Brine
Broil
Brunswick stew
Brown
Brown betty
Cacao
Brush
Buffet
Camembert
Café au lait
Café noir
Candying
Canadian Bacon
Canapé
Caramelize
Caper
Capon
Casserole
Carte
Casaba melon
Chef
Cavier
Chateaubriand
Chives
Chicory
Chill
Citron
Chop
Chutney
Cobbler
Clarify
Coat
Condiment

Coddle
Connoisseur
Coq au vin
Crêpe suzette
Cube
Curry
Cut in
Demitasse
Dissolved
Drain
Drippings
Dust
Eggs Benedict
Escallop
Fermentation
Fillet mignon
Flambé
Fold
Frenched
Fritters
Garbanzo
Glaze
Grate
Griddle
Gumbo
Herbs
Hors d'oeuvres
Irish stew
Jardiniere
Karo
Kitchen bouquet
Lait
Legumes
London Broil
Marinate
Masking
Melba toast
Meringue
Minestrone
Mixed grill
Mornay sauce
Mozzarella
Pan
Parboil
Parisienne
Pasteurize
Peel
Pilaf

Compote
Consommé
Creole
Croquette
Cuisine
Cut
Cutlet
Deviled
Dot
Dredge
Du jour
Eclairs
Emulsify
Essence
Fillet
Fine herbs
Flour
Fondant
Freeze
Frost
Garnish
Goulash
Grease
Grind
Head cheese
Hominy
Hush puppies
Italienne
Julienne
Kebob
Knead
Larding
Lentils
Maraschino
Marrow
Mayonnaise
Melt
Minced
Minute steak
Mocha
Mousse
Noisette
Pan broil
Pare
Parmesan
Pastry bag
Petite
Pimiento

Cookery
Crêpe
Croutons
Cure
Cut and fold
Deep fat fry
Diced
Dough
Dress
Duchess potatoes
Eggplant
Entree
Extract
Fillet de sole
Finnan haddie
Flute
Fondue
Fricassee
Fry
Giblet
Gourmet
Gruyère
Grits
Heifer
Homogenize
Indian pudding
Jambalaya
Jus
Kippered
Kosher
Leek
Limburger cheese
Marinade
Mash
Melba
Menu
Mincemeat
Mixing
Mold
Mutton
Omelet
Pan fry
Parfait
Parsely
Pâté
Petite fours
Pistachio nuts
Pomme

Planked
Poach
Pot pie
Pommes de terre
Porter house steak
Proof
Poulet
Preheat
Ramekin
Purée
Ragout
Reduce
Rasher
Ravioli
Roe
Render
Roast
Requefort
Roll
Romaine
Salami
Saccharin
Saffron
Scallion
Sauerbraten
Scald
Score
Scallop
Scone
Sear
Scrape
Scrub
Shad
Season
Section
Shell
Shallots
Shape
Shred
Sherbet
Shirred eggs
Singe
Simmer
Sift
Smorgasbord
Skim
Slice
Soufflé
Smother
Sole
Steam
Spit
Spoon bread
Sterilize
Steep
Steer
Stock
Stew
Stir
Suet
Strain
Stroganoff
Swiss chard
Suprême
Sweetbreads
Table d'hote
Swiss steak
Tabasco
Tart
Tapioca
Tarragon
Tenderloin
Tartare steak
Tasse
Torte
Terrapin
Toast
Tripe
Tortillas
Toss
Tureen
Truffle
Truss
Veal birds
Unmold
Variable
Welsh rarebit
Venison
Vin
Weiner Schnitzel
White wash
Whip
Zest
Wild rice
Yorkshire Pudding
Zucchini

B. The student will explain basic preparation methods associated with each of the basic food groups.

1. appetizers
2. herbs and spices
3. salads and salad dressing
4. cheese preparation
5. soups and stocks
6. vegetable preparation
7. potato preparation
8. sauces and gravies
9. beef preparation
10. veal preparation
11. pork preparation
12. lamb and mutton
13. poultry and game
14. fish and shellfish
15. quickbread preparation
16. cookie preparation
17. roll doughs and sweet doughs

18. pie doughs and fillings
19. cakes and icings

C. The student will read, then successfully follow, recipes in food preparation to prepare a professionally standard product.

D. The student will prepare a given food and explain why specific methods are used. For example, the student will determine whether to use a moist or dry heat method for cooking a specific cut of beef.

II. The student will demonstrate correct care and use of equipment to be used with the specific food item in the unit.

A. The student will identify, name, and state purpose of all equipment found in the FEAST Lab:

Refrigerator
Mixer
Pressure Cooker
Deep Fryer
Food Warmer
Coffee Maker
2 Gallon Storage Bin
9 Quart Stock Pots
3" Butcher Knife
Boning Knives-Flex-Blade
French Knives
Square Graters
Bread Pans
Cloth Pastry Bag
Rolling Pins
18" Potato Masher
Pastry Decorating Sets
Skimmer
24 Cup Muffin Pans
Scale Portion Control
Flour Sieves

Freezer
Work Tables
Oven
Bun Warmer
Disposer
Tumblers
Springform Pans
Portion Control Scale
Dough Cutters
Boning Knives-Rigid-Blade
2 Quart Saute Pans
Bain Marie Pot
Cake Pans
Display Stand
Pastry Brushes
Foley Food Mill
Ladles
Scoop
Electric Buffet Skillet
"Pelouze" Egg Beaters
Electric Knife
Spreader
Pepper Mill

Cutting Table
Steam Kettle
Broiler
GE Range
Dishwasher
Collander
32 Ounce Pyrex Liquid Measure
Meat Cleaver
10 1/2" Skewers
Kitchen Shears
Steak Weight
Bowl Stand
Natural Pumice
Aluminum Measures
Funnels
Knife Hone
Spoons
Potato Bakers
2 Screen Sifter
Meat Thermometer
14" Mixing Whip
Vegetable Peelers
Paring Knife
Pie Tins
Thermoplate Service Idea
Cheese Cutter

Minute Minder
Knife-Curved Blade
Loaf Pan 4 Quart
Russell Spatula
Flexoserve Mobile Cafe.
Burger Press
Baker's Brush
Carborumdum Stone
Vegetable Cutter

B. The student will orally state proper care and safety precautions to be used with each piece of equipment found in the FEAST Lab.

C. The student will properly demonstrate use of each piece of equipment found in the FEAST Lab, including safety precautions to be taken and proper care of the piece of equipment during use, cleaning and storage.

III. The student will apply safety and sanitation standards and regulations pertinent to the specific products or food items or piece of equipment with which he is working.

A. The student will identify specific points to be watched carefully in terms of sanitation according to terms set up by City Sanitation.

B. Student will identify various potential safety hazards found in the FEAST Lab, and state either orally or in writing how such hazards might be avoided.

C. Student will demonstrate his understanding of safety and sanitation practices by applying them in a practical lab situation.

IV. The student will demonstrate knowledge of storage, costing and shopping related to specific products through practical application.

A. The student will determine the proper kinds of storage to be provided for each food item covered, then demonstrate his understanding of proper storage by correctly handling food-stuffs purchased for use in lab.

B. The student will determine "best buys" in terms of servings per market unit, cost per serving, etc.

C. The student will determine best food sources and best food buys via comparing prices at a number of grocery and food wholesale outlets.

V. The student will incorporate food item covered in each unit into a well-balanced, aesthetically pleasing menu.

A. The student will plan an attractive nutritionally balanced meal using "Basic 4" as guide and applying principles of design in planning (i.e., color, texture, shape, harmony, etc.)

B. Given a specific food item, student will incorporate it into an aesthetically pleasing, nutritionally balanced meal.

Sewing for Profit I *(2 Credits)*

Course Prerequisites:

None.

Behavioral Objectives:

I. Use of Sewing Machine

A. Practice exercises on sewing machines
1. sewing straight lines
2. sewing curved lines
3. estimating distance from edges
4. picking up two pieces of material
5. tacking
6. folding materials: darts, hems, collars, facings, tucks, pleats

Minimum level for above exercises:

1. lines are traced on the cloth. Students must be able to sew on 80% of the lines.
2. same as (1) except lines are curved.
3. student will demonstrate that he can sew within 1/8th of an inch from an edge of a piece of cloth.
4. student will manipulate material in such a way that it is ready to sew. Pieces must be assembled so that the correct sides are together, and edges are even. Accuracy judged by instructor.
5. students will demonstrate that they can secure a seam.
6. students will demonstrate that they can fold material in preparation for making darts, hems, collars, facings, tucks, and pleats.

Conditions: all of these tasks will be performed in the classroom.

B. Students will operate a power sewing machine.

Minimum level:

1. check and change the needle of the machine
2. change bobbins and be able to thread the machine
3. operate the on and off switch
4. operate treadle properly
5. sew straight lines
6. control starting and stopping
7. control needle up and down
8. operate knee lift to release or hold material, or

control feeding speed
9. sew backwards

Conditions: all of these tasks will be performed in the classroom.

II. Basic Skills for Clothing Construction

A. Choice of fabric

Minimum level:

1. Given the description of ten fabrics in terms of the following dimensions, students will indicate appropriate articles of clothing which could be made from these fabrics.

2. Given the description of ten articles of clothing, the student will specify a fabric appropriate to that clothing design.

Dimensions:
fibers - natural or synthetic
weight - light, medium, and heavy
construction - tightly woven, loosely woven, fused, molded, knitted
design - plain stripe, solid, print
color -
finish - permanent press, sizing, water repellant
care - dry clean, hand wash, machine wash

Conditions: students will be allowed to consult reference materials.

B. Work with Fabric

Minimum level:

1. Given 10 fabrics, students will be able to identify whether they are woven and if they are woven they will be able to identify the lengthwise and crosswise grains.

2. Given a fabric not on straight of grain, students will realign the fabric.

3. For woven fabrics, students will set pattern pieces on the grain. (Generally lengthwise grain will be perpendicular to the floor--exceptions: collar and trim generally are laid out on the bias.)

4. Students will match plaids, stripes, geometrics, and prints according to pattern notches.

5. Students will match pattern pieces in the same direction for one-way fabrics.

C. Use of Commercial Patterns

Minimum level: the student will assemble a garment--

1. sew a plain seam (two pieces of fabric are stitched together on the seam line with right sides together).

2. sew a dart from the marking at edge of fabric to the point.

3. sew facings to the right side of the garment and turn to wrong side hiding the raw edges.

4. assemble the collar pieces with the two right sides of the collar sections together and the interfacing underneath these two, next to the feed dog. Stitch all three pieces together, leaving the neck edge open, attach collar to the neck edge.

5. stitch a sleeve to the armhole with right sides together and the sleeve uppermost on the machine, staring at the underarm; ease the sleeve without letting a pucker form.

6. insert a zipper by lapped and center application.

7. practice the different types of hem finishes: clean finish, french hem, machine hem.

III. Introduction to the Clothing Industry

A. The student will explore the clothing industry by visiting places where commercial sewing is done. Each student will visit at least three of the following:

1. manufacturing plant
2. alteration workroom
3. tailoring or dressmaking shop
4. slipcover and drapery workroom
5. clothing maintenance establishment

B. The student will participate in the following steps in garment production. The tasks of spreader, cutter, assembler, sewer, inspector, trimmer will be performed in the classroom.

SEWING FOR PROFIT II *(2 Credits)*

Course Prerequisites:

Sewing for Profit I.

Behavioral Objectives:

I. Use of Industrial Machines

A. The student will thread the lockstitch machines.
B. The student will wind the bobbin on the lockstitch machines.
C. The student will solve minor problems on the lockstitch machines, such as adjust tension and needle position.
D. The student will change the thread on the overedger.
E. The student will thread the overedger.
F. The student will operate the overedger to finish a seam.
G. The student will make a buttonhole.
H. The student will stitch a hem using the blindstitch machine.

II. Alterations (Proficiency in the alteration of clothing)

A. The student will perform techniques used for alteration of:

1. hems
2. sleeve length
3. dart location
4. drag lines
5. trouser cuffs
6. waistband

B. The student will check grainline, amount of ease, length, location of design lines, placement of ill-fitting garments, and indicate appropriate alteration procedure.

C. The student will redesign an outmoded garment to a useful fashionable garment by changing design lines.
D. The student will repair garments: replace lining in jackets and coats, replace buttons, pockets, repair rips and holes.

III. Tailoring methods to make a ladies' coat or jacket

A. The student will perform the following tailoring techniques in the construction of individual class projects:

1. Cut and apply front interfacing and back shoulder interfacing;
2. Use padding stitches on lapel;
3. Tape edges and seams;
4. Make bound buttonholes;
5. Notched collar construction;
6. Treatment of encased seams;
7. Secure rolle line of collar and cuffs;
8. Regulation of set in sleeve;
9. Fitting;
10. Hem finishes;
11. Sewing on buttons;
12. Interlining by machine method;
13. Methods of lining (hand, machine, combination).

B. The student will practice techniques of pressing:

1. Demonstrate the difference between ironing and pressing;
2. List dangers of overpressing;
3. Use pressing equipment to retain and produce shape.

IV. Finishing: Handstitch Techniques used in finishing

A. Blind stitch (slip stitch)

1. Prepare hem sample on cotton fabric;
2. Prepare sample hem on lining fabric;
3. Prepare sample of stitch as used in relining a coat.

B. Catch Stitch

1. Practice stitch;
2. Make a sample;
3. Know that a catch stitch can be utilized for hems, correcting seam allowances, and decoration.

C. Tailor's Hem

1. Prepare a sample;
2. List uses of this type hem;
3. Know that a tailor's hem should be utilized on medium and heavy weight fabrics.

D. Basting Stitches (Tailoring basting, uneven basting, even basting)

1. Prepare samples of the various basting stitches;
2. Study uses of each stitch and list one use of each.

E. Overcasting

1. Prepare a sample on pinked edge of seam;
2. List 2 reasons for using this stitch (i.e., to prevent raveling and for decoration)

SEWING FOR PROFIT III *(2 Credits)*

Course Prerequisites:

Sewing for Profit II.

Behavioral Objectives:

I. The Business of Fashion: The student will understand that fashion is the business of making goods best suited to our times and our lives.

A. The student will research a choice of topics concerning:

1. origin and evolution of clothing in relation to needs and environment (i.e., protection, modesty, personal adornment);
2. history of Western garment forms;
3. fashion and the garment industry, including--
    a. the consumer and fashion acceptance
    b. meaning of haute couture
    c. development of garment industry, pattern industry with the industrial revolution
    d. merchandising: development of shopping centers, status of the department stores, other stores
4. social and psychological aspects of clothing including--
    a. social and economic influences

5. outlook for the clothing industry;
6. the clothing dollar; how is it split?

II. Dressmaking--Going Into Business for Yourself : The student will develop proficiency in dressmaking skills; understand the responsibilities of an individual in business.

A. Garment Construction
    1. alter patterns
    2. organize time
    3. fit garments
    4. practice appropriate construction processes
    5. perform men's garment construction techniques--
        a. sew a fly front
        b. construct trouser pockets
        c. waistband
        d. cuff trousers

B. Customer-employee relations, including:
    1. acquiring customers

C. Financial aspects of the dressmaking business, including:
    1. legal aspects of self-employed dressmakers;
    2. bookkeeping system (will be set up in class);
    3. compute cost of charters for customer services.

III. Employment and Careers: The student will select an area of the clothing field in which he is interested and investigate it in detail, including:

A. Job availability--demand
B. Working conditions
C. Description
D. Salary
E. Training and experience requirements

IV. Getting the Job: types of job opportunities and procedures needed for applications and interviews:

A. Job listings
B. Job interview
C. Job applications

SEWING FOR PROFIT IV *(2 Credits)*

Prerequisites:

Sewing for Profit III.

Behavioral Objectives:

Subject:

The student will attain on-the-job experience in the clothing field and perform all aspects of the job as required by the employer.

Minimum Level:

The student will perform at the same level as other employees and hold the job for the duration of the semester enrolled in Sewing for Profit IV.

FEAST, LANGUAGE ARTS *(1 Credit)*

Prerequisites:

Enrollment in the FEAST Program.

Behavioral Objectives:

I. Students will arrange and decorate the FEAST dining room according to standards suggested by the National Restaurant Association.

II. Students will prepare menus for the school FEAST dining room utilizing correct food terminology and appetizing food descriptions.

III. Students will design aesthetically appealing advertisements, posters, and commercials for the school restaurant.

IV. Students will pass the Washington State Department of Health examinations and get health cards enabling them to work in the school restaurant.

V. Students will evaluate the school cafeteria, utilizing the same standards as the Public Health Department when they grade restaurants.

VI. Students, in a restaurant situation, will courteously greet customers, explain menu and food terminology, take orders, and serve the customers.

VII. Students will be able to correctly fill out franchise, lease, insurance, accounting, tax, and health forms used in the food service industry.

VIII. Students will be able to write job applications including previous work experience, education, and references.

IX. Students will be able to orally communicate in a job interview their previous work experience, education, and references and ask for same, role-playing an employer's position.

X. Students will keep a journal and write a brief history of their participation in the FEAST Program.

BIOLOGY III-IV LABORATORY ASSISTANT AND/OR ORAL HEALTH AIDE *(2 Credits)*

Students who have taken a year of high school biology will be referred to this program if they are interested in the Life Sciences of paramedical fields. This course prepares students for patient and/or laboratory assistant type jobs, assisting qualified personnel in providing diagnostic, therapeutic, preventive, restorative, and rehabilitative services to people. It is hoped, of course, that students will decide as a result of this practical experience that they will want to further their education in health occupations and Life Sciences.

Laboratories cooperating in the program:

1. METRO Ecology Lab
2. METRO Water Quality and Sewage Lab
3. Mason Clinic, Hematology Lab
4. Harborview Medical Center, Cytology Lab
5. King County Central Blood Bank, Plasma Department
6. Seattle Artificial Kidney Center
7. Providence Heart Center
8. University of Washington, Department of Botany
9. University of Washington, Physical Medicine and Rehabilitation Physical Therapy Lab
10. University of Washington, Large Scale Preparation Lab, Biochemistry Department
11. Harborview Medical Center, Radio Isotope Lab
12. Bureau of Commercial Fisheries, Biological Lab, Technology Lab, Food Pioneer Research Lab
13. University of Washington, Biochemistry Lab, Department of Psychiatry, School of Medicine
14. University of Washington, Neurohistology, Immunology and Chemistry Lab, School of Medicine
15. University of Washington, Anesthesiology Research, Biochemistry Lab, School of Medicine
16. University of Washington, Electron Microscope Lab, Department of Pathology, School of Medicine
17. Harborview Medical Center, Hematology Lab
18. Harborview Medical Center, Renal Lab
19. University of Washington School of Oceanography, Marine Sciences Complex

20. Seattle Mental Health Institute
21. University of Washington Cast Clinic
22. University of Washington, Neo Natal Biology, School of Medicine
23. University of Washington, Department of Electrical Engineering, School of Engineering
24. Public Health Hospital, Department of Oncology
25. Monte Cristo Institute
26. Physical Medicine and Rehabilitation Speech Therapy
27. University of Washington Orthopedic Section
28. Providence Hospital, Physical and Occupational Therapy Department
29. Snoqualmie National Forest Camp
30. Merri Vista Convalescent Hospital
31. Merri Acres Convalescent Hospital
32. Weyerhaeuser Research Chemistry Lab
33. American Chemical Society Lab, Bagley Hall, University of Washington
34. Harborview Medical Center, Occupational Therapy
35. Rimrock Forest Camp
36. Odessa Brown Children's Clinic (dental)

Prerequisites:

One year of biology (Biology I and II) or equivalent pre-aration. Students are also urged to have taken a year of chemistry.

Behavioral Objectives: (Lab Assistant)

Students in different laboratory field stations perform different and varied tasks. Laboratory situations in which all students will be involved require, however, that they:

I. Organize and set up routine laboratory procedures;

II. Achieve a reasonable degree of accuracy in measuring solids and liquids;

III. Demonstrate an acceptable degree of reliability and promptness in reporting to work and in the completion of assignments, equivalent to employees in these fields;

IV. Perform the following tasks:

  A. Understand and use the metric system of measurement in reading quantities;

  B. Construct graphs; compare and interpret the meanings conveyed by graphs;

  C. Write symbols of chemical elements and understand and write molecular formulas;

  D. Balance simple chemical equations;

  E. Use standard math--add, multiply, use decimal system; understand and use scientific notations;

  F. Detail functions of each member of the health team within which they work;

  G. Not discuss or reveal confidential laboratory patient information;

  H. Keep accurate and reliable laboratory records as necessitated by the laboratory assignment;

  I. Given diagrams illustrating the major muscles, nerves, bones, blood vessels, and internal organs in the human body, the student will identify them using standard medical terminology;

  J. Identify and properly care for laboratory equipment;

  K. Perform aseptic techniques and methods of sterilization;

L. Prepare basic laboratory solutions and media; i.e., liquid solutions, percent by weight, percent by volume, normal and molal solutions;

M. Understand basic elements of quality control; i.e., for each test performed a check of known standards must also be run;

N. Handle properly cytologic and histologic specimens;

O. Perform a venipuncture and obtain blood specimens;

P. Understand the theory of and be able to perform or assist in the performance of the following laboratory tests and procedures:

1. Hematology - red and white blood cell counts, hemoglobin determination, hemiatocrit determination;
2. Serology - V.D.R.L. or R.P.R. (test for presence of syphillis);
3. Blood Banking - cross-matching blood, direct and indirect coombs tests;
4. Urinalysis;
5. BMR - Basil Metabolism Rate;
6. Electrocadriography;
7. Electrophoresis;
8. Clinical Chemistry: Given a blood sample students will determine the hydrogen ion and hydroxyl ion concentrations of the blood and content by percent of sodium, potassium, calcium, and carbon dioxide;
9. Bacteriology: Determine whether organisms are gram positive or gram negative.

Behavioral Objectives: (Oral Health Aide)

There are several types of work within the oral health field. Description of their responsibilities, which follow, indicates how these people work together.

Dentist: The dentist is the scientist and director of the oral health team. A dentist cleans teeth, examines the mouth for diseases. He diagnoses and fixes cavities in teeth, straightens teeth, takes x-rays of the mouth, and treats gum diseases, extracts teeth and substitutes artificial dentures. He spends most of his time with patients; some specialize in orthodontistry. Preparation includes 3-4 years of college and 4 years in a School of Dentistry, culminating in Doctor of Dentistry (DMD) degree.

Dental Hygienist: Dental hygienists work under the supervision of a dentist. They perform oral prophylaxis by cleaning teeth, by removing stains and calcium deposits, by polishing teeth and massaging gums. They chart conditions of decay and disease for diagnosis by the dentist, take and develop x-rays, mix filling compounds, apply solutions to teeth for prevention and control of dental decay, administer prescribed medications, and sterilize instruments. Hygienists provide oral health education, including the techniques of mouth care and proper diet. They work in hospitals, clinics, schools, public health agencies, industrial plants and in the armed services as civilians. They earn a Certificate of Dental Hygiene upon completion of 2-4 years at a dental school and a Bachelor of Science degree if they complete a four-year program.

Dental Lab Technician: Dental lab technicians make most of the artificial dentures, teeth, crowns, bridges, and other dental and orthodontal appliances on receipt of prescriptions from dentists using special dental tools and lab equipment. Dental lab technicians usually do not come in direct contact with patients. Their preparation consists of a minimum of one year of supervised work under a dentist or two years of community college dental lab technician training, leading to an associate degree.

Dental Assistant: Under supervision of a dentist, the dental assistant performs chair-side assistance, settles patients in dental chairs, and sterilizes instruments. The dental assistant may operate an x-ray machine, develop and mount x-rays, mix filling materials and dental cement, or perform laboratory procedures. Under supervision of a dentist, the dental assistant performs examinations on adults and children in schools, clinics, and day care centers to help determine the status of their oral health by using a special probe instrument. He assists the dentist in educating and training patients (mostly children) in oral disease control. His/her duties may also include greeting patients, answering the telephone, scheduling appointments and handling other office routines.

The dental assistant's education may range from one year of office training under the supervision of a dentist to two years of college training leading to a certificate in dental hygiene, as a dental assistant or oral health aide or dental therapist which are types of dental assistants.

The Oral Health Aide portion of this course provides entry-level training into the oral health field as part of the offerings in the Life Sciences Training Program. It prepares a student to be an oral health aide or dental health therapist I, a type of dental assistant.

The oral health aide, as a member of the oral health team, performs his responsibilities under the direction of a trained scientist, usually the dentist, and must be able to:

1. recognize oral disease as measured by a dental probe, noting signs of oral disease such as: bleeding gingiva, inflammation, presence of bacterial plaque, food debris, dental decay, bad odor, and discoloration of teeth.

2. discuss methods of controlling oral disease such as fluoridation of community or personal water supply, vitamin and mineral supplements to diet, regular examination of patients in schools, day care centers, homes, and use of standard aids--tooth brush, dental floss and other peridontal aids as well as oral plaque control programs.

3. initiate a dental disease control program using one or more of the above methods and follow through with clinical aspects involving prevention, control including consultation with and referral to a psychologist, dentist, hygienist, therapist, peridontist or physician.

4. administer intra-oral and panorax radiographs and make prints of them for scanning and diagnosis by the dentist.

5. Assist the dentist at chair-side by settling the patient in a chair and handing the dentist instruments at his call (sulcular bleeding indicator, mouth mirror, explorers of various kinds, cotton, forceps, spatula, mixing pad, etc.).

6. discuss the roles of the dental health team giving their functions and responsibilities.

7. not discuss a patient's case with non-professionals or lay persons.

8. enter into a patient's record the data given by the scientist in charge using a clear, accurate and legible hand.

9. find a patient's chart and record from the office files.

10. use a microscope (light) and identify bacteria from stained slides.

11. demonstrate an acceptable degree of reliability and promptness in reporting to work and in the completion of assignments, equivalent to employees in these fields.

CHAPTER II: SOCIAL STUDIES DEPARTMENT

Introduction:

Any organization, institution, society, ideology, or world community which inhibits (innocently or not) the free movement of ideas among the people who comprise it--up, down, and across their organizational structures--is depriving itself of its full measure of its greatest resource, human thought, and is in grave danger of being buried in history by the avalanche of the creativity of others.

Social science courses operate upon this assumption and study, basically, conditions necessary to preserve and create such responsible freedom.

INTRODUCTION TO SOCIAL SCIENCES *(1 Credit)*

(formerly "Social Sciences and You")

Prerequisites:

Freshman standing.

Behavioral Objectives:

I. Introduction: The student will demonstrate by oral recitation and written communication the ability to distinguish between the six basic social sciences, their domain of interest, and the types of problems related to each area of study.

II. Anthropology: Every society, however technologically primitive, has formed its own system of beliefs, knowledge, values, traditions, and skills that can be called its culture. Students will compare two societies, such as the Aztec and Australian Bushmen cultures. Comparison will include discussion of religion, scientific discoveries, daily living habits, food, clothing, privileges of the rich, organization of the family, political organization, art, and music.

SUPPLEMENTARY INFORMATION

CONCERNING THE

CAREER OPPORTUNITY PROGRAM

BY GARFIELD STAFF

APPENDIX 8

PROCEDURES, UNITS, TASKS, AND MATERIALS

HOWARD WHITE, PRINCIPAL
MARVINIA HUNTER, CURRICULUM COORDINATOR
DR. LOUIS WILDMAN, CONTRIBUTING EDITOR

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CARPENTRY I AND II

Procedures:

Lectures followed by discussions, demonstrations, dramatizations of each project and field trips to construction sites, lumber mills, and manufacturers of different types of building materials.

Individual guidance when needed. Presentations by contractors, union leaders, and other tradesmen in the construction field.

Tasks:

1. read blueprints
2. locate and stake out buildings
3. layout and set batterboards for buildings
4. building the forms for the foundation, footings, etc.
5. framing floor systems below joists
6. framing floor systems above girders
7. framing subfloor covering
8. framing stud walls
9. framing ceiling joists
10. framing rafters for roofs
11. installation of roof sheathing
12. install insulation in ceiling
13. install siding on exterior surface
14. install finish wall interior
15. install reinforcing steel
16. build steps
17. build forms for curbs and gutters
18. install doors and windows
19. order lumber and materials.
20. build trusses
21. install rough and finish hardware
22. install sashes for doors and windows
23. install cabinets
24. install custom mill work
25. maintain and clean work area
26. install weather stripping
27. read builders level
28. measure correctly
29. apply first aid procedures
30. check work
31. clean equipment

COSMETOLOGY

Procedures:

A cosmetologist works with all people. This is because he is in a personal service job. His clients come from many ethnic and cultural extractions. He performs his work in private homes, beauty shops, institutions, and even in private offices or clubs.

It is necessary for the cosmetologist to have a working knowledge of hairstyling, skin care, hand care, make-up and the disorders that he may come in contact with while performing his service for the public. He must know anatomy and physiology, use professional ethics, and develop a pleasing personality. He must also know how to sanitize and sterilize his equipment and shop so as to combat germs that may be carried from one person to another.

The cosmetologist's work day may be a regular nine to five, but usually because he performs a service for the public, appointments can be arranged outside of his regular schedule.

It is extremely important for the cosmetologist to maintain a neat and clean appearance. Since the cosmetologist must deal with many different types of people, he must be considerate of each individual's needs, likes, and dislikes.

A good beautician is always in demand. It is how he projects himself to others and how he performs as a beautician that draws or destroys lasting customer relations.

Tasks:

I. Sanitizing with Chemical Disinfectants

  A. Mix 25% solution of Formalin
  B. Wash implements thoroughly with soap and hot water
  C. Use plain water rinse to remove all traces of soap
  D. Immerse implements in wet sanitizer
  E. Remove implements from wet sanitizer
  F. Rinse in water and wipe dry with clean towel
  G. Store sanitized implements in individually wrapped cellophane envelopes or keep in cabinet sanitizer until ready to be used.

II. Shampooing

- A. Seat patron
- B. Select and arrange materials
- C. Wash and sanitize hands
- D. Place neck-strip and cape on patron
- E. Remove pins and combs from hair
- F. Ask patron to remove jewelry and glasses and place in her purse
- G. Examine condition of patrons scalp and hair
- H. Brush hair thoroughly
- I. Seat patron at shampoo bowl
- J. Adjust cape over back of chair
- K. Adjust volume and temperature of the water
- L. Rinse hair
- M. Apply shampoo
- N. Give shampoo manipulations
- O. Rinse hair
- P. Repeat above 3 steps until patron's hair and scalp are clean

III. Hair Rinsing

- A. Determine type of rinse to be used
- B. Apply rinse
- C. Set timer
- D. Check rinse for progress
- E. Remove rinse, applying warm water

IV. Hair & Scalp Treatments

- A. Determine type of treatment to be used
- B. Assemble necessary materials
- C. Prepare patron
- D. Brush hair
- E. Apply scalp or hair treatment
- F. Give proper manipulations
- G. Set timer
- H. Shampoo and rinse hair
- I. Towel dry hair
- J. Apply scalp lotion.

V. Manicuring

- A. Prepare manicuring table
- B. Seat patron
- C. Determine type of manicure to be given
- D. Wash and sanitize hands
- E. Remove old nail polish
- F. Shape nails
- G. Soften cuticles
- H. Dry fingers

- I. Apply cuticle remover
- J. Clean under free edge
- K. Trim cuticles
- L. Loosen cuticles (this should be executed before trimming
- M. Bleach under free edge
- N. Apply cuticle oil
- O. Cleanse nails
- P. Bevel nails
- Q. Apply base coat of polish
- R. Apply color coat of polish
- S. Remove excess polish
- T. Apply sealer coat of polish
- U. Apply hand lotion

VI. Finger Waving

- A. Gather all necessary implements and supplies
- B. Prepare patron in same manner as for shampoo
- C. Saturate patrons hair with water at shampoo bowl
- D. Towel blot the hair and seat the patron before dresserctte
- E. Comb hair smooth and free from tangles
- F. Locate the natural hair growth
- G. Start forming first ridge working right to left.
- H. Check first ridge for smoothness
- I. Start forming the second ridge working from left to right
- J. Continue in alternating directions until the complete head has been waved.
- K. Place net over hair and safeguard patrons ears
- L. Place patron under dryer
- M. Remove patron from dryer
- N. Remove hair net and clippies from hair
- O. Comb out and reset waves into a soft coiffure

VII. Hair Shaping

- A. Determine type of haircut to be given (wet or dry)
- B. Select suitable hair cut on the basis of head shape, and facial contour
- C. Discuss proposed styles with patron and obtain agreement
- D. Seat patron and drape her
- E. Shape from nape of neck towards both ears, using scissors and comb or razor, moving toward crown
- F. Brush loose hair away as needed
- G. Separate hair using comb and clips
- H. Shape left side of head until desired length is reached
- I. Shape right side of head until desired length is reached
- J. Style by trimming, combing, and brushing

- K. Check work to see that hair is consistently shaped to the style
- L. Remove all loose hair from patron
- M. Repeat steps above as needed
- N. Sterilize tools and clean area

VIII. Hairstyling

- A. Select suitable hairstyle on the basis of hair color, head shape, and facial contour
- B. Discuss proposed style with patron and obtain agreement
- C. Prepare patron in the same manner as for a shampoo
- D. Shampoo the hair
- E. Towel blot the hair and seat patron before dresserette
- F. Comb hair smooth and free of tangles
- G. Cut hair to desired shape
- H. Set hair in desired pattern for agreed styling, with rollers, pin curls, and shaping
- I. Place net over set, safeguarding patrons ears with protectors.
- J. Place patron under dryer
- K. Remove patron from dryer
- L. Seat patron at dresserette
- M. Remove net, clippers, rollers, and pins from hair
- N. Brush and comb hair into desired styling

IX. Cold Waving

- A. Give patron a complete hair and scalp analysis
- B. Fill our permanent record card
- C. Drape patron in same manner as for shampoo.
- D. Shampoo hair lightly (do not irritate scalp)
- E. Give patron haircut
- F. Section hair for cold wave
- G. Have sectioning check by instructor
- H. Wrap hair starting where the most curl is desired--usually at nape area
- I. Have permanent wave wrapping checked by instructor
- J. Apply protection at hair line and apply waving solution in same procedure as hair was wrapped
- K. Check test curls every thirty seconds
- L. Remove protection strip at hair line
- M. Check test curls for desired curl
- N. Rinse hair, towel blot and neutralize thoroughly
- O. Remove permanent wave rods; start at nape area
- P. Rinse hair thoroughly
- Q. Complete permanent wave record card.

X. Chemical Hair Relaxing

- A. Seat patron
- B. Give patron scalp and hair analysis
- C. Examine and evaluate test results
- D. Prepare and drape the patron
- E. Select and arrange the required implements and supplies
- F. Section hair into five sections
- G. Apply protective base on one section at a time
- H. Check for thorough coverage of the scalp and the hairline
- I. Put protective gloves on
- J. Apply relaxer
- K. Spread relaxer through hair
- L. Test action of relaxer
- M. Rinse relaxer from hair
- N. Shampoo hair
- O. Apply stabilizer
- P. Set hair
- Q. Clean up area

XI. Hair Pressing

- A. Give patron scalp and hair analysis
- B. Drape patron as for shampoo
- C. Shampoo, rinse, and towel dry hair
- D. Place patron under dryer
- E. Take patron from under dryer
- F. Comb hair, divide into four sections
- G. Start pressing hair one section at a time
- H. Press entire head starting at the back crown area
- I. Apply a small amount of pressing cream to scalp and brush it through hair
- J. Hot curl and style hair
- K. Clean up area

XII. Thermal Waving and Curling

- A. Give patron hair and scalp analysis
- B. Prepare patron for shampoo
- C. Shampoo patron's hair
- D. Place patron under dryer
- E. Press patron's hair
- F. Determine pattern in which hair is to be curled
- G. Curl hair in styling pattern with curling irons
- H. Style hair into appropriate shape to suit patrons face
- I. Clean up area

XIII. Hair Coloring

A. Give patron scalp and hair analysis.
B. Give patch test
C. Make color selection with patron
D. Give strand test for color
E. Fill out color and release record card
F. Assemble all necessary supplies
G. Prepare patron
H. Prepare formula for color
I. Put on protective gloves
J. Section hair into four quarters and outline partings with tint
K. Sub-divide sections and apply tint to each 1/4 inch strand, beginning in back crown area
L. Test strand for color development
M. Rinse thoroughly, to remove free color
N. Remove stains from hairline, ears, and neck area
O. Give a mild shampoo and rinse
P. Apply a neutral rinse
Q. Set, dry, and style hair
R. Complete record card.

XIV. Styling of Wigs

A. Brush the wig free of tangles
B. Dip wig into prepared cleaning solution
C. Place wig on block; holding it firmly, pin wig securely at the front, sides, and back
D. Select suitable hairstyle on basis of hair color and facial contour
E. Cut wig into desired style if needed with razor.
F. Set wig in desired style pattern
G. Place net over set wig and put into dryer
H. Remove wig from dryer
I. Remove curlers, pins, and clippies and net
J. Comb and brush hair into desired style
K. Spray hair with hair spray to set style

XV. Facial Treatments

A. Prepare patron
B. Relax patron
C. Give skin analysis
D. Apply cleansing cream
E. Remove cleansing cream
F. Steam face
G. Apply emollient (tissue) cream
H. Give facial manipulations
I. Remove emollient cream
J. Apply foundation and make-up
K. Clean up area

XVI. Facial Make-up

A. Give patron make-up consultation
B. Prepare patron
C. Apply cleansing cream
D. Remove cleansing cream
E. Arch eyebrows
F. Apply astringent lotion or skin toner
G. Apply foundation
H. Apply blusher
I. Apply eyeshadow
J. Apply eyeliner
K. Apply eyebrow pencil
L. Apply powder
M. Apply mascara
N. Apply lip color
O. Clean up area

XVII. Superfluous Hair (Temporary Removal)

A. Prepare patron
B. Determine method of removal to be used
C. Give skin test (set appointment 24 hours in advance
D. Prepare patron
E. Mix dipilitory according to directions
F. Clean and dry skin
G. Apply thick layer of dipilitory
H. Protect surrounding skin with vaseline
I. Set timer for five to ten minutes
J. Wash dipilitory and hair off with warm water
K. Pat the skin with towel and then apply cold cream
L. Clean up area

Units:

I. Professional Ethics
  A. Ethics for the Cosmetologist

II. Professional Projection
  A. Hygience, Grooming and Posture
  B. Personality

III. Bacteriology, Sterilization, and Sanitation
  A. Bacteriology
  B. Sterilization
  C. Sanitation

IV. Anatomy and Physiology
  A. Cells, Tissues, Organs, and Systems
  B. Skeletal System
  C. Muscular System
  D. Nervous System
  E. Vascular System
  F. Glandular System
  G. Excretory System
  H. Respiratory System
  I. Digestive System

V. Histology of the Skin, Hair, and Nails
  A. The Skin
  B. The Hair
  C. The Nails

VI. Skin, Scalp and Hair Diseases
  A. Skin Diseases
  B. Scalp and Hair Diseases

VII. Electricity
  A. Fundamentals of Electricity

VIII. Light Therapy
  A. Fundamentals of Light Therapy

IX. Massage
  A. Theory of Massage
  B. Basic Massage Manipulation

X. Chemistry
  A. Introduction
  B. Chemistry Applied to Cosmetics

XI. Shampoos and Rinses
  A. Plain Shampoo
  B. Special Shampoos
  C. Hair Rinses

XII. Scalp Treatments
  A. Scalp Treatment
  B. Special Scalp Treatments

XIII. Manicuring
  A. Plain Manicure
  B. Hand and Arm Massage
  C. Pedicuring
  D. Nail Disorders

XIV. Haircutting
    A. Equipment and Techniques

XV. Hairstyling
    A. Fingerwaving
    B. Other Waving and Curling
    C. Pincurling
    D. Roller Curls
    E. Artistry in Hairstyling

XVI. Permanent Waving
    A. Introduction and History
    B. Cold Waving

XVII. Facial Makeup
    A. Plain Facial
    B. Special Facial Treatments
    C. Packs and Masks

XVIII. Facial Makeup
    A. Makeup Application
    B. Eyebrow Arching

XIX. Hair Bleaching
    A. Introduction to Hair Bleaching
    B. Virgin Bleach and Bleach Retouch

XX. Hair Coloring
    A. Introduction to Hair Tinting
    B. General Tinting Information, Reconditions, Treatments and Corrective Work
    C. Tinting with Aniline Derivatives
    D. Tinting with Vegetable Dyes, Henna Pack
    E. Metallic Hair Dyes
    F. Compound Henna
    G. Removal of Hair Dyes
    H. Lash and Brown Tinting

XXI. Removal of Superfluous Hair
    A. Electrolysis
    B. Depilatories

XXII. Hair Pressing
    A. Introduction to Hair Pressing
    B. Soft and Hard Pressing

XXIII. Chemical Hair Relaxing
    A. Introduction
    B. Relaxation of Over Curly Hair

XXIV. Heat Waving and Curling
    A. Marcel Waving
    B. Croquignole Heat Curling

XXV. Hair Pieces
    A. Introduction
    B. Selection and Styling of Wigs

XXVI. Business Information
    A. Beauty Salon Management
    B. Things to Consider When Going into Business and Business Law

DRY CLEANING

Procedures:

Students are evaluated on each task by the instructor who maintains professional standards in a dry cleaning establishment.

Tasks:

I. Counter Work

1. Work at counter and greet customers
2. Write invoices
3. Mark and tag Clothes
4. Search pockets and inspect clothes for spots, stains, tears, and things of value
5. Separate clothes by color for dry cleaning
6. Operate dry cleaning machine
7. Use and operate reclaiming machine
8. Waterproofing of clothes
9. Mothproofing of clothes
10. Steam and steam clean whenever a garment needs it
11. Hand clean and dry brush clothes
12. Bleach and give some garments oil bath
13. Use and operate pressing machine
14. Hand finish some articles
15. Press wool, silk, etc.
16. Operate power sewing machine, do small repairs, sew on buttons
17. Assemble and price clothes
18. Use adding machine and cash register
19. Keep records of sales
20. Measure customer for repairs and alterations
21. Order supplies
22. Spot wool and silk

23. Counter attendant contacts customer
24. Must be well informed about spots, fabrics and process of the plant
25. Must be pleasant and reliable when handling invoices, records and money
26. Write invoices for customers (listing number of garments)
27. Write color and any special work that is requested by the customer, make notation of some garments that are torn or damaged so that customers can be aware of the condition of the article
28. Remind customer of his needs; example, waterproofing and/or mothproofing
29. Be sure the customer's name is spelled correctly and written clearly
30. Handle clothes carefully when tying in a bundle, yet be sure that the bundle is tight enough that nothing will get lost until the bundle is marked in for cleaning
31. Separating clothes is usually done by the cleaner
32. Separate all dark, black, blue, purple and gray (wools only) etc.
33. Separate the silk (the same as the wool except it would be better if the more delicate and sheer silk pieces would be cleaned in a bag).
34. Separate and put all whites together
35. Separate all special work, like hand things that are to be cleaned by the hand and prespotted to remove difficult spots and stains
36. After the garments are separated, they are ready for cleaning.
37. Search pockets; clean from them all lint, paper, scraps, etc.
38. Remove all harmful objects, such as lipstick and ballpoint pens
39. Remove anything of any value; if there is something of value, make a notation on invoice and place valuable object in small bag to keep for customer
40. Zip up all zippers, check for broken zipper, make notation on invoice
41. Brush cuffs of trousers to remove all lint; do this with a hard brush; brushing cuffs can be done with a machine if available
42. When finished put clothes in a basket
43. Establish a routine for applying tag and stapling garment
44. Marking tags to show invoice number and day promised
45. If any special instructions are required write on tag and staple to garment; for example: waterproofing--write "W.P."; mothproofing-- "M.P."; or bleaching, "bleach."
46. Always count the number from the invoices, how many garments and write that many tags to check. If count is correct, put garments aside in basket as they are ready for cleaning.

47. Assembling orders is done by the inspector or counter attendant
48. The attendant gets invoices for that day's orders
49. Check finishing line to get each garment that belongs to order on the invoices
50. Check each garment for spots, pressing standards, free repairs
51. Be sure that all garments that go with an order are accounted for
52. After the garments are counted and order is completed combine all garments together and price with tax
53. Tie or bag clothes together
54. Hang all finished orders together; then file away on storage line
55. After pinning invoice on shoulder of sleeve it is ready for customer.

II. Dry Cleaning Work

1. Operating cleaning machine (most cleaning machines are automatic)
2. Put load in machine
3. Set automatic timer for whatever time required and at that time the machine will automatically switch itself over the extraction; the machine will extract for 5 minutes. After the completion of extraction, the machine will stop and idle.
4. Remove garments and put them in a reclaimer machine
5. Put clothes in reclaimer to dry
6. Set time that is required for load
7. Know that some clothes dry at different temperatures
8. When load is finished drying, put load in basket
9. Examine garments for stains, dinginess, discoloration, and grayness
10. Decide what bleach to use
11. Use crock that is large enough so that the garment is covered while soaking
12. Soak garment until satisfied with looks
13. Remove garment from bleach
14. Rinse in two clear waterbaths; then give 1 acetic bath
15. Remove from acetic bath and extract lightly and hang to dry
16. After drying, tumble on cold air setting

III. Steam Cleaning Work

1. Check machine adjustment and steam pressure
2. Note pad (thickness)
3. Put on a new cover if needed
4. Be sure machine is in good operating condition (steam links, vacuum on the press)

5. Check what garments are to be finished (for example, pants, shirts, coats or silks; this will determine how to adjust the machine for finishing)
6. Finish the garment accordingly
7. Use no more pressure than required
8. Use the respective steam pedals that are necessary
9. Finish all garments and start all garments in a regular routine
10. Dip garment in water bath to soak for 5 minutes
11. Take garment out and hand brush to remove soil spots.
12. Try and remove stains if possible
13. Rinse garments in 3 baths, 2 water and 1 acetic bath
14. Take garment out of acetic bath and extract
15. Hang garment to dry or tumble on cold air setting until half dry; then finish tumble on hot air
16. To steam clean in a washing machine turn garment inside out so the lining will clean good. Wash garment very slowly and be sure the washing machine is over half full. Wash 10 - 15 minutes, drain washer, and rinse two times in clear water, one time acetic. Remove garment and place in extractor. Dry or tumble on cold air setting until half dry and then finish tumbling on hot air.

IV. Finishing Work

1. Check steam pressure on iron (note if iron has thermostat control adjusted to the garment to be finished)
2. Inspect the garment and see what is to be done
3. Begin by placing garment on finish board
4. Finish garment in a regular routine manner. Start at the zipper or seam and iron completely around the garment, returning to the starting point; hence recognizing that the garment is completely finished
5. Hang on finish line.

6. Waterproofing by tank method: dip garment in waterproofing tank that contains no less than 5 gallons of waterproofing so that the garment can be completely covered; take out the garment and let garment dry in machine drying tumbler.
7. Waterproofing by spray method: Put garment on hanger so that garment can be sprayed evenly. Spray and let dry.
8. Mothproofing by spray method: Hand garment on line, spray evenly. Spray inside garment. Put garment in tumbler and let it dry.

Units:

Introduction to Dry Cleaning

Counter Department

Dry Cleaning Department

Steam Cleaning Department

Finishing Department

SERVICE STATION I - II (SALES ATTENDANT)

Procedures:

I. Occupational Background

  A. Criteria: Because the prime purpose for the service station is to qualify the student for employment and job advancement, the classroom and station work is performed in a job atmosphere, including attention to punctuality, attendance, appearance, quality and quantity of work, personal contribution and student-staff relationships.

  B. Structure:

    1. Beside the usual school administrative and counseling staff, four or more persons serve on the instructional staff of the service station. This staff is comprised of men who are successful and well qualified as service station attendants, mechanics, or managers.

    2. A classroom at the Washington Campus of Garfield High School is used when needed. An operating service station at 901 Rainier Avenue South is used as a classroom and the work practice site.

    3. Generally, each student has the opportunity to demonstrate his progress in each day's class, and is graded on the basis of written and performed work.

II. Classroom Discussion and Demonstration

  A. To insure knowledge of specific safety requirements and an understanding of mechanical jobs performed, following a demonstration with drawings, film material, or mechanical displays, most topics are thoroughly discussed in the classroom before the student personally demonstrates the skills involved.

B. The student will often be assigned certain subjects to present to the class as a review.

C. Frequent customer-attendant "role playing" is used in the classroom to allow the student a conversational mastery of his new skills.

III. Mechanical and Sales Study Sessions

During the class time on an individual or team basis, the material studied by discussion and demonstration is physically performed on demonstration equipment and by role playing.

IV. Mechanical and Sales Practice Sessions

During class time (in classroom and at the station) and on an assigned basis during scheduled work practice, individuals or selected teams may practice certain mechanical or sales functions on demonstration equipment to improve their skills before applying them to actual situations.

V. Work Practice

A. The greatest part of the homework requirement for Service Station I-II is fulfilled by performing work practice at the operational service station. Each practice includes the assignment of specific new or routine skills to include in the normal work routine, a graded evaluation, and a check-off of fulfilled objectives.

B. Grading and attendance standards for work practice are as for regular school classes. Because reliability is a basic occupational skill, the proven ability to be in attendance at the specified time is required. Also, the high cost of providing the operating service station for student instruction and practice demands that available practice time be wisely used.

VI. Individualized Counseling

A. Every student may discuss his progress and special problems or plans in private counsel with the instructor.

B. Special student counseling involving service station supervisors, school counselors, administrators, or other teachers will be performed when the need arises. The parent may be asked to participate.

C. Default Counseling

1. Students will automatically be referred to their grade level counselor for assistance is they:

    a. are not meeting behavioral objectives as scheduled.
    b. have three unexcused absences (includes unexcused tardiness of over fifteen minutes) in a grading quarter.
    c. exhibit continued disruptive behavior or immature emotions.

2. If further assistance is required, the parent and instructor may be called by the counselor before taking administrative action.

VII. Home Support

Home support, including assistance with the school work (where necessary) is essential to giving the student a true-life view of the work-a-day world. To assist in the student's progress, parents receive a breakdown of achievements and specific new goals at the end of each instructional unit. In the instance of special needs (e.g., reading improvement) regular personal help at home may be required and more frequent contact with the parent will occur.

VIII. Personal Progress Projects

Students who enter the course with advanced skills or who are fast achievers, may be assigned additional programs to be completed at the student's personal rate of accomplishment.

IX. Field Trips

A. Purpose: Trips are planned to

1. make the student aware of the many varied selling situations which may typify a service station;

2. become familiar with the operations of suppliers (e.g., parts wholesaler, machine shop, gasoline depot)

3. to view special techniques (e.g., high speed wheel balancing;
4. broaden the familiarity with businesses in the automotive industry (e.g., new car dealership, truck assembly plant);
5. become aware of other small business opportunities;
6. understand the operations, policies, and employment opportunities of the petroleum industry;
7. understand the facilities available for advanced training (community colleges, university, oil companies, etc.).

B. Administrative

1. As nearly as possible, all trips involve no extra expense to the student except, perhaps, meal costs.
2. Specific class work is associated with preparation for and testing after each trip.
3. Studentswho exhibit immature, disruptive or irresponsible behavior during a field trip will not be included in subsequent trips.

Units:

A topical scheduling of the course in periods of three to five weeks:

I. Introduction to the Service Station

  A. Influence of the business on the public and the automotive industry
  B. Familiarizing the student with service station jobs, facilities, purpose, and procedures
  C. Profit: its influence on payroll, sales, growth, and security
  D. Island services: glass and tires
  E. Security: honesty, emergency measures

F. Automation: auto structure, four stroke cycle

G. Appearance: station and personal appeal, especially smile, dress, and action

H. Sales Qualities: Speed, Smile, Service, and Safety

II. Island Sales and Station Preparation

A. Island service: gas delivery, "under-the-hood," water, oil, battery level, windshield washer

B. Change making and credit card processing

C. Sales: greeting, the order, tire and oil service prompters

D. Preparation: island, hoist, lube equipment, hoses and floor

E. Automotive: systems, services, four points of pressure lubrication, transmission

III. Junior Attendant I

A. Island service: Under hood and wheel inspection, incidental services

B. Island sales, service prompters, collection, closing, return visits

C. Automotive: floor and end jacks, wheel removal and replacement, change oil and filter, oil selection, tire mounting and dismounting

D. Preparation: rest rooms, office, merchandise, tool bench and lot

E. Security: cash register, tool bench, store room

IV. Lubrication, Tire Repair, and Station Opening and Closing

A. Island sales, service prompters and tie-in sales

B. Automotive: carburetor linkage and idle speed adjustment; ignition system; clean and gap spark plugs; under-hood lubrication; door and trunk lubrication; squeek removal; car clean up; tubeless repair with cord, plugs, and patches; oil flush, coolant additives; and rediator pressure tests.

C. Preparation: opening and closing station, dispenser refill and maintenance.

V. Junior Attendant II

A. Island sales: service prompters and personal selling, wiper blade and arm sales

B. Automotive: the fuel system, carburetor circuits, mixture adjustment, installation of two barrel tune-up kits, installation of distributor kit, point setting, flushing cooling system, wheel balancing with a bubble balancer, wheel repack.

C. Preparation: painting, plumbing, air system

D. Security: till stripping, opening, closing

VI. Minor Tune-Up, TBA Sales

A. Island sales: tire and battery analysis and leaders

B. Automotive: timing; dwell; rewiring; choke and fast idle adjustment; battery analysis; charging and replacement; compression and vacuum analysis; automatic transmission service; fan belt, radiator hose and heater hose replacement; thermostat replacement and testing.

VII. Attendant I

A. Island sales: giveaways and special promotions, fan belts and hoses

B. Automotive: brake inspection, adjustment, and bleeding; 4 barrel carburetor tune-up kits and adjustment; distributor removal; coil checks and replacement; charging analysis; replacement of fusible links, regulators, alternators/generators; regular tune-up

C. Management: planning promotions, handbill design, and cost of advertising.

VIII. A. Island sales: analyze operating conditions by personal observation and sell tune-up and brake work

B. Automotive: brake shoe removal, wheel cylinder removal and rebuild, drum analysis, emission control functions and regular services, testing centrifugal and vacuum advance with unit service or replacement, testing breaker cam and bushing, cranking voltage, solenoid, key switch, engagement and motor problems, flat rate tune-ups.

C. Brake service, starter problems, emission controls, full shift practices, and service sales

D. Practice work: consecutive 8-hour shifts and fulfill all normal sales attendant functions

E. Management: schedule employees for two specified stations, apply for sales attendant's job, complete time payment forms.

IX. Attendant II

A. Island sales: sell branded services, time payment, and obtain two new customers through personal contact

B. Automotive: perform three regular tune-ups; repair or replace master cylinder, equalizer, and disc brake pads, cylinders, and rotor; balance wheels using an on-the-car high speed spinner; service fuses, lights and flasher, trace and neutralize short circuits

C. Management: calculate hourly pay on weekly, monthly, and annual basis and vice versa; calculate value of paid vacations, sick pay, and other benefits

D. Preparation: prepare a daily and weekly schedule of preparation and maintenance duties.

X. Scope analysis, value adjustment and access, review and individual study

A. Island sales: sell specific products or services as assigned; build merchandise displays

B. Automotive: perform basic scope analysis; adjust tappets, remove heads for valve grind and reinstall; replace exhaust parts; perform two brake jobs, including cylinder rebuild and pressure bleeding; replace water pump; remove and reinstall radiator

C. Management: prepare job description for sales attendant, mechanic, and night manager in a specified service station.

Materials:

I. Textbooks--certain books are assigned to individual students for use through the year during study of specific class or personal progress topics.

   A. Automechanics by Harold T. Glenn, Charles A. Bennett Co.

   B. Automotive Diagnosis and Tune-Up by Guy F. Wetzel, McKnight & McKnight Publishing Company.

   C. Automotive Tune-Up Principles and Procedures by the Ignition Manufacturers Institute.

   D. Automotive Suspension, Steering, Alignment and Brakes by W. E. Billiet and W. Allez, American Technical Society.

   E. Shop Tools)
   F. Fuels, Lubricants and Coolants) by John Deere Service
   G. Air Conditioning) Publications

II. Reference Books-- for work with individual automobiles and study of specific systems and components, reference volumes are available at the station and the school including

   A. Motor's Auto Repair Manual by Forier

   B. Bearings and Seals)
   C. Engines) By John Deere Service Publications
   D. Electrical Systems)
   E. Power Transmissions)

   F. Glenn's Foreign Carburetors and Electrical Systems
   G. Glenn's Foreign Car Repair Manual both by Harold T. Glenn, Chilton Book Company.

   H. Wiring and Vacuum Diagrams Manual) The Chil-
   I. Automotive Service Manual, Professional Edition) ton Book
   J. Labor Guide and Parts Manual) Company

   K. Tire, Batteries and Accessories Handbook, Mobil Oil Company.

III. Professional File--a permanent reference file is built by each student to use for on-the-job assistance and review after he completes the course. According to the individual's progress, his file may include:

A. "The Cranking Circuit (And How it Works)," Delco Remy Corporation

B. "20,000 Volts Under the Hood (The Ignition Circuit and How it Works)," Delco Remy Corporation

C. "Regulation and Changing Circuit," Delco Remy Corporation

D. "The Story of Gasoline," Ethyl Corporation, Petroleum Products Division

E. "Analysis and Diagnosis of Motor Oil," Gard Corporation

F. "Car Repairs...Parts You Should Know," National Automotive Parts Association

G. "Starting and Managing a Service Station," Small Business Administration

H. "Attitude Toward Work")
I. "Being on Time")
J. "Relationship with Supervision") World of Work, McGraw
K. "Calling in Sick") Hill Publishing Co.
L. "Doing Your Best")
M. "Responsibility to Self")

N. "For Better Gasoline Engine Overhauls," the Dana Corporation

O. "How the Wheels Revolve" General Motors Corporation

P. "Facts About Passenger Tires")
Q. "Mobil Service Handbook")Mobil Oil Company
R. "Appearance")
S. "Managing Your Own Service Station")

T. "Automotive Service Manual") Champion Spark Plug
U. "1971 Spark Plug Recommendations") Corporation

V. "Wheel Alignment and Balance")Programmed In-
W. "Automatic Transmission Diagnosis")struction Books,
X. "Charging System Diagnosis")Ford Marketing
Y. "Electrical Circuit Fundamentals")Corporation
Z. "Using the Wiring Diagram")

AA. "The Fuel System")
BB. "The Cooling and Exhaust System")Programmed
CC. "The Brake System")Instruction
DD. "Practical Problems in Math-Automotive)Books - Delmar
Trades")Publishers

EE. "New Britain - Catalog of Quality Hand Tools - 597M," The New Britain Machine Company

FF. "Facts About Oil-Air-Gasoline Filters," Purolator Products, Inc.

GG. "Brake Service Manual for Passenger Cars," Raybestos-Manhattan, Inc.

HH. "Automechanics Workbook," Charles Bennett Company

II. "Automotive Diagnosis and Tune-Up Study Guide," McKnight and McKnight Publishing Company

JJ. "Automotive Suspension, Steering, Alignment and Brakes-Study Guide," American Technical Society

KK. "Windshield Wiper Arms and Blades," The Trico Corporation

LL. "Frank Plovic's Charging Battery Test" reprinted from "Commercial Car Journal" by Delco-Remy Corporation

MM. "The Engine Cooling System," Union Carbide Consumer Products Company

IV. Audio Visual Aids

A. "Engines" 195 slides by John Deere Publications

B. "Ignition System and Transistorized Ignition")slide pre-
C. "Cooling and Exhaust System")sentations
D. "The Fuel System")by the
E. "Scope Analysis")Allen
F. "Basic Engine Parts")Corporation

G. Case of the Slippery Oil, sound film by Perfect Circle Company

H. Spark in Time on the Firing Line, sound film by Champion Spark Plug Company

I. Story of the Modern Spark Plug, sound film by Champion Spark Plug Company

J. Let 'Er Roll, sound film by Tinken Roller Bearing Company

K. Introduction to the Heat Engine, sound film by Shell Oil Company

L. The Cooling System, sound film by Union Carbide Corporation

V. Demonstrators and Simulators

A variety of training assists, including automotive parts and cutaways, ignition and electrical system simulators, and demonstrations on actual automobiles are used to give the student a real-life familiarity before he moves into the practice phase of a topic.

HEALTH OCCUPATIONS: NURSING AIDE/ORDERLY

Tasks:

1. Introduction to accepted medical abbreviations
2. Assisting patients with meals
3. Making an occupied bed
4. Making an unoccupied bed
5. Taking pulse, respirations, temperature
6. Baths: giving a bed bath, giving a medicated bath, giving a sitz bath, giving a temperature sponge bath, giving a tub bath
7. Symptoms of illness--general
8. Symptoms of shock
9. Bed pan administration
10. Patient AM Care
11. Patient 4 PM Care
12. Patient HS Care
13. Patient mouth care
14. Giving a hair shampoo
15. Administration of hot water bottle/ice collar
16. Patient intake and output
17. Getting patient out of bed/into bed
18. Getting patient into wheelchair/stretcher
19. Prevention and care decubiti
20. How to admit a patient
21. How to discharge a patient
22. Helping with a physical examination
23. Positioning of patients
24. Shaving patients - preoperational
25. Preoperative care
26. Postoperative care
27. Records of patients - charting
28. Crutches and crutch walking
29. Blood pressure -- interpretation, reading

30. Administration of enemas
31. Isolation technique
32. Helping with a tube feeding
33. Obtaining specimens: urine or special, diabetic urine, fecal, sputum
34. Applying binders, bandages, dressings
35. Introduction to tubes, catheters
36. Post mortem care
37. Adminstrating bladder irrigation
38. Care, post cardiac patient
39. Comfort and safety of patient
40. Steam inhalations
41. Introduction to nursing careers

Units:

I. ROLE OF THE NURSING AIDE

A. The Nursing Aide as part of the health team
B. The patient and his needs and expectations
    1. be acquainted with the training program
    2. the functions of a nursing aide
    3. the responsibilities and opportunities of the nursing aide.
    4. develop an understanding and appreciation of the responsibilities of the nursing aide as part of the nursing and/or health team
    5. develop some compassionate understanding and appreciation of the patient, his suffering, and other experiences during illness.
    6. identify oneself as a nursing aide and inform patient of what both nursing aide and patient will do in the latter's behalf

II. OBSERVATION AND REPORTING

A. Expectation
    1. have a beginning skill in observation
    2. record and report observations made of patient's condition
    3. develop an appreciation of the value of accurate reporting and recording
    4. check that side rails and posey belts are in place if they are ordered and/or needed
    5. check that all tubings are draining and in proper place (patient not lying on tubing or tubing clamped off when it should not be)
    6. check for hearing aid, etc. Is patient hard of hearing?

III. THE PATIENT'S ENVIRONMENT EXPECTATION

- A. Expectation
    - 1. maintain clean, neat, safe environment (neatness--all unnecessary objects and extra dishes removed)
    - 2. personal effects (eye glasses, dentures) in proper place
    - 3. water flowers as necessary and remove dead ones
    - 4. have necessary items, such as water within reach of patient
    - 5. observe state of patient (if in pain, comfortable, etc.)
    - 6. check to see that patient has drinking water or other nourishment as desired, when patient is able to have them

IV. BEDMAKING

- A. Occupied
- B. Unoccupied
- C. Expectation: be able to make beds, occupied and unoccupied

V. FOOD SERVICE AND FLUIDS

- A. Intake and output keeping
- B. Feeding the patient
    - 1. feeding the blind patient
- C. Expectations:
    - 1. give nourishments when ordered
    - 2. check to see that patient has proper diet
    - 3. feed patient when necessary
    - 4. cut up patient's food when necessary
    - 5. maintain proper intake and output records
    - 6. with blind patient, be sure to tell patient what you are feeding him
    - 7. know what to count on intake and output records

VI. MOVING AND POSITIONING PATIENTS

- A. Expectations
    - 1. leave patient in proper body alignment after positioning
    - 2. use proper body mechanics with assistance, if necessary, when moving and positioning patient.
    - 3. position patient as ordered by physician

VII. THE PERSONAL HYGIENE NEEDS OF THE PATIENT

A. Expectations
   1. give daily bath
   2. care for teeth or dentures
   3. clean patient after each use of bed pan
   4. comb and brush hair of patient, as necessary

VIII. KARDEX

IX. MAINTENANCE OF STERILE AND NON-STERILE SUPPLIES

A. Make sure sterile supplies are not contaminated when handling

X. BANDAGES

A. Understand simple wrapping of body extremities
B. Wrap ace bandages on body extremities

XI. ANATOMY AND PHYSIOLOGY

XII. WRITTEN EXAMINATION

A. Give student practice in taking written tests
B. Get an idea of what subjects students do not understand

XIII. PRACTICAL EXAMINATION

A. Determine in which areas the students need more practice

XIV. REVIEWS

FEAST, Home Economics

Procedures:

1. Students answer questions or write papers based on readings.
2. Students select a food item within each food category, incorporate it within a menu, and calculate cost per total meal and per serving.
3. Students prepare, sell, and serve food items in FEAST cafeteria.
4. A short quiz is given at the end of each unit.

Units:

1. appetizers
2. herbs and spices
3. salads and salad dressings
4. cheese preparation
5. soups and stocks
6. vegetable preparation
7. potato preparation
8. sauces and gravies
9. beef preparation
10. veal preparation
11. pork preparation
12. lamb and mutton
13. poultry and game
14. fish and shellfish
15. quick bread preparation
16. cookie preparation
17. roll doughs and sweet doughs
18. pie doughs and fillings
19. cakes and icings

FEAST, LANGUAGE ARTS

Tasks:

Manager: direct other members of "crew"; plan menus; acting cashier; host; pick up slack where needed; prepare market order--do what shopping is needed for day; designate odd jobs.

Waiter A: take orders; deliver order to kitchen; serve beverage to customer; serve food; clear tables and set up clean covers; take care of initial set up; help with initial food preparation.

Waiter B: Same as above only instead of initial set up, he helps more with initial food preparation in kitchen.

Busman: pots and pans, dishes to kitchen, general clean-up in kitchen; help with initial cooking.

Grill: clean grill; cook grilled foods; french fries; prepare patties in advance; gather grill supplies; plates ready to go; make sure grill is heated; preparation on all foods used at grill--hamburger, tomato, lettuce, etc.

Server: setting up plates, all dishing up of hot food; portion control; garnishes; steam table heated; serving utensils ready; cutting boards and knives ready; initial food preparation.

Dishwasher: wash all dishes; replace clean dishes and silver; check kitchen--clean up as needed; overlap on pots and pans; help where needed with initial food preparation.

General: pick up slack; prepare condiments, seasonings, etc; run errands; fill in where ever needed.

Units:

1.	Convenience foods - equipment
2.	Soups
3.	Sandwiches
4.	Simple desserts
5.	Beverages
6-7	Open restaurant; cereals, casseroles, meat extenders
8-9	Fruits, vegetables, salads
10.	Cookies; mix - baked goods
11	Dairy products; eggs
12-13	Fish, shellfish
14-15	Poultry
16-17	Meats
18	Quick breads
19-20	Meats
21-22	Pastry
23-24	Appetizers
25-28	Yeast breads
29-30	Foreign Foods
31-32	Soul Food
33-36	Buffets, Catering, Banquets

General First Year Schedule:

36 Weeks

5 weeks--Orientation
Introduction to Foods
Equipment - convenience foods
Soups
Sandwiches
Desserts
Beverages

15 weeks-Restaurant Operation
Continue Operation with Bakery
Introduce experimental labs

16 weeks-Restaurant Operation with Bakery
Practical experience for students in cafeteria under direction of cafeteria supervisor

Materials:

Texts--

Food Preparation for Hotels, Restaurants, and Cafeterias, R.G. Haines, Chicago: American Technical Society, 1968.

Handbook of Food Preparation, American Home Economics Association.

SEWING FOR PROFIT I

Units:

1. Use of the Industrial Sewing Machine: machines for industrial sewing; control of machines; straight stitching; turning corners, curves; threading the machine; winding the bobbin; simple machine adjustments; time-saving techniques in stitching; backstitch; stitching without basting or pinning; ripping properly.

2. Basic Skills for Clothing Construction: fabric choice--choosing appropriate fabric for pattern and intended use and vice versa; assemble a file of textile information; discuss properties of fibers and fabrics; working with fabric--weave, grain, nap.

3. How to Use a Commercial Pattern: use pattern to make garment; construction techniques; construction sequence

Materials: (Texts)

Opportunities in Clothing, McDermott and Norris

Utah State Power Machine Guide

Singer 281 Manual

Clothing a Comprehensive Study, Craig

Bishop Method of Clothing Construction

McCalls Step by Step

Vogue Sewing Book

SEWING FOR PROFIT II

Units:

1. The Use of Industrial Machines: control of power driven machines; simple machine adjustments; threading the machines; changing the thread.

2. Alterations: judging what can be done; how to alter; marking with chalk; marking with thread; fitting techniques; guidelines for proper fit; correcting fitting problems.

3. Tailoring: equipment for sewing and pressing; fabrics recommended for different styles; shaping materials--interfacing, tape, underlining; pattern selection and alterations; laying pattern; cutting; marking; unit method of clothing construction; fittings.

4. Finishing: blindstitch; catchstitch; tailors hem; basting stitches; overcasting.

Materials: (Texts)

Opportunities in Clothing, McDermott and Norris

Clothing a Comprehensive Study, Craig

Fashion Sewing by the Bishop Method, Bishop and Arch

SEWING FOR PROFIT III

Units:

1. The Business of Fashion: origin and evolution of clothing; history of Western garment forms; fashion and the garment industry; social and psychological aspects of clothing; the future of clothing industry; clothing dollar.

2. The Dressmaking Business: garment construction; customer/employee relationship; financial aspects of business.

3. Employment and Careers: career choices; job availability; working conditions; description; salary; training and experience requirements.

4. Getting the Job: job listings; interview; application.

Materials: (Texts)

Inside the Fashion Business, Jarnow and Judelle

Industrial, Labor and Community Relations, Merle Strong

How to Get a Job, Elna Stone

My Career Guidebook, Belman and Shertzer

How to Choose your Work, Elna Stone

Business Behavior, Allien Russon

Opportunities in Clothing, McDermott and Norris

SEWING FOR PROFIT IV

Units:

1. Independent Student Project in Chosen Area of Clothing World
2. Getting the Job: student will practice technique of getting job; resume; job application sample; oral interviews.

BIOLOGY III-IV: LABORATORY ASSISTANT AND/OR ORAL HEALTH AIDE

Procedures:

The sequence of instruction will begin in a high school classroom with emphasis on those scientific and mathematical principles and concepts which are essential for student progress and success in the program. The sequence of instruction and allocation of time for the course will be at the discretion of the director but shall include adequate basic technical instruction and clinical experience in hematology, clinical chemistry, blood banking, parasitology, and basil metabolism rate and electrocardiography.

Steps in the Training Program involving the Work Stations:

Step 1: Student on a field visit, by himself or in a group, visits the work station: observation of personnel, teamwork, and staff; work station in relation to the job specification and skills involved; and routine tests involved. The student visits one to three or more times for one to two-hour per day visits. There is a follow-up evaluation and discussion regarding the job specifications.

Step 2: Assignment of one or more persons to observe performance of person trained working in the job of the work station. Time involved: one to five days, one or two-hours per day. There is evaluation and discussion following this visit.

Step 3: Assignment of student or students to the trained personnel at the work station to begin pre-training and training development of skills involved, with some responsibility. Time involved: one to six days, one or two hours per day. There is follow-up evaluation and discussion.

Step 4: Under supervision of the trained person manning the work station, the student begins responsibility for the performance of the work involved in the work station specifications. Time involved: five to ten days, or more, one or more hours per day. There is evaluation of skills developed and discussion of progress.

Step 5: Under direct supervision of the personnel in the work station, student assumes responsibility for the work outlined in the job description for the work station. Time involved: one or more hours per day, for a set period of time; or ten week summer program, or time to be arranged. There will be an evaluation. The student will expect payment for services in this step.

AUTOMOTIVE SERVICES (VOCATIONAL) IS COMPRISED OF THE FOLLOWING:

AUTOMOTIVE AIR CONDITIONING

I. Basic Theory

- A. Introduction and orientation
- B. Refrigerant
- C. Refrigerant safety precautions
- D. Refrigerant oil
- E. The refrigeration system
  - 1. Receiver-drier-filter
  - 2. Thermostatic expansion valve
  - 3. Evaporator
  - 4. Compressor
  - 5. Condenser

II. System Components

- A. Receiver-drier
- B. Expansion valves
- C. Service valves
- D. Thermostats
- E. Magnetic clutches
- F. Temperature control valves
- G. Hot gas by-pass valves
- H. Suction throttling regulator
- I. Evaporator pressure regulator
- J. Suction throttling valve
- K. Pilot operated absolute valve
- L. Automatic temperature control

III. Troubleshooting All Systems

- A. System produces no cooling
- B. System will not produce sufficient cooling
- C. System cools intermittently
- D. Excessively noisy system
- E. Abnormal pressure gauge readings
- F. Diagnosing system
- G. General motors automatic temperature control
- H. Refrigerant capacities

IV. Testing All Systems

A. Test gauges and manifold set
B. System diagnosis-introduction
C. Visual test
D. Leak testing
E. Connecting manifold gauges
F. Performance test
G. Purging system
H. Evacuating system
I. Charging system
J. Isolating compressor
K. Compressor volumetric test
L. Thermostatic expansion valve test
M. Adjusting thermostat
N. Oil level test

V. Clutch Servicing (AMC, Chrysler, Ford and Independents)

A. Coil test
B. Clutch removal
C. Hub and shoe assembly removal
D. Warner plate type H & S assembly removal
E. Pulley bearing removal-vise method
F. Pulley bearing installing-vise method
G. Hub and shoe installing-vise method
H. Coil installing

VI. Compressor Servicing (AMC, Ford and Independents)

A. Seal removal
B. Seal installing
C. Head and valve plate removal-York
D. Head and valve plate installing-York
E. Head and valve plate removal-tecumseh
G. York compressor specifications
H. Tecumseh compressor specifications

VII. Compressor Servicing (Chrysler Systems)

A. Testing and servicing EPR valve
B. Seal removal
C. Seal installing
D. Cylinder head and valve plate assembly removal
E. Piston and connecting rod removal

F. Piston and connecting rod
G. Cylinder head and valve plate assembly installing
H. Compressor removal
I. Final assembly
J. Chrysler compressor specifications

VIII. Components Servicing (General Motors Systems)

A. Testing and adjusting hot gas by-pass valve
B. Rebuilding hot gas by-pass valve
C. Testing and adjusting suction throttle valve
D. Servicing suction throttle valve
E. Testing the pilot-operated absolute valve
F. Testing automatic termperature control
G. Dial test of automatic temperature control
H. Adjusting dial of automatic temperature control

IX. Compressor Servicing (GM 6 Cylinder Systems)

A. Clutch removal
B. Clutch drive plate installing
C. Final reassembly
D. Seal disassembly
E. Seal seat removal
F. Seal removal
G. "O" ring removal
H. Cleaning
I. Seal reassembly
J. "O" ring installing
K. Seal installing
L. Seal seat installing
M. Retained ring installing
N. Leak testing shaft seal
O. Pulley removal
P. Pulley bearing removal
Q. Pulley bearing installing
R. Pulley installing
S. Coil homsing removal
T. Coil homsing installing

X. Compressor Servicing (GM 5 Cylinder Systems)

A. Pulley removal
B. Clutch plate removal

C. Coil removal
D. Seal removal
E. Seal installing
F. Seal leak testing
G. Coil installing
H. Clutch and pulley installing
I. Compressor oil level check
J. Adding oil
K. Corvair service information

AUTOMOTIVE BODY AND FENDER

Units

I. Body

A. Purpose
B. Design
C. Construction
  1. Pressed steel panels
  2. Reinforcing members
  3. Attaching brackets
  4. Attaching bolts (rubber mounted)
D. Components
  1. Firewall assembly
  2. Instrument panel assembly
  3. Floor assembly
  4. Roof assembly
  5. Doors and center pillar assembly
  6. Rear quarter panels
  7. Rear-end assembly
  8. Front fenders, hood and grill assembly
  9. Windsheild and glass assemblies
  10. Seats
  11. Body ventilating assembly
  12. Headlining assembly
  13. Exterior molding and trim
E. Body styles
  1. Sports sedan: 4-door (no center post)
  2. Sports coupe: 2-door (no center post)
  3. Convertible: 2-door
  4. Sedan: 4-door
  5. Sedan: 2-door
  6. Station wagons
  7. Sports cars
  8. Compacts
  9. Sport wagons (busses, vans,etc.)

10. Pick-up trucks
11. Heavy-duty trucks (assorted sizes and uses)

II. Shop Practice

A. Panel repair and replacement
B. Customizing
C. Finishing
D. Glass replacement

AUTOMOTIVE ELECTRICITY

Procedures

Students will spend the first portion of the course working with a self contained automotive electricity training unit. This unit includes a combination text and lab manual, a wiring bread board with templets, and individually mounted components which simulate the electrical systems found in an automobile.

Students will also work with engine simulators, actual engines, automotive analyzers, oscilloscopes, multimeters, distributor syncrograph machines and a timing strobe light. Other visual aids will be available.

Units

I. Introduction and Orientation

A. The DeVry automotive electricity trainer
    1. Components
    2. Automotive analyzer
    3. Low voltage power supply
    4. Texts and lab manuals
B. Safety in the shop

II. Batteries and Circuits

A. How batteries provide energy
B. Connecting electrical circuits
C. Controlling current with resistors

III. Motors, Generators and Regulators

A. How electric motors work
B. How generators operate
C. How alternators operate
D. How voltage regulators operate

IV. Lighting Circuits and Protective Devices

A. Using electricity for lighting
B. Protecting electric circuits

V. Ignition Systems

A. Producing a spark
B. How an ignition system works
C. How a transistorized ignition system works

VI. Gauges and Indicators

A. How electric indicators work
B. Indicating fuel level
C. Indicating oil pressure
D. Indicating temperature

VII. Additional Control and Accessory Circuits

A. Controlling accessory motors
B. How other accessories operate

VIII. Shop Practice and Application

A. Charging Circuit
  1. Battery
  2. Test a battery with a nydrometer
  3. Test a battery with a breakdown tester
  4. Test a battery with a capacity tester
  5. Replace a storage battery
  6. Recharge a battery
  7. Test battery cables
  8. Replace a battery ground cable
  9. Replace a battery starting-motor cable
  10. Regulators
  11. Adjust voltage regulator
  12. Adjust current regulator
  13. Adjust a circuit breaker/cutout relay

14. Generator/alternator
15. Overhaul a generator
16. Overhaul an alternator

B. Cranking circuit
   1. Test a cranking motor
   2. Overhaul a cranking motor
   3. Replace an ignition/starter switch

C. Ignition circuit
   1. Adjust ignition timing
   2. Service spark plugs
   3. Replace an ignition cap and rotor set
   4. Replace primary ignition wires
   5. Replace spark-plug wires
   6. Adjust ignition-point cap
   7. Adjust dwell angle on externally adjustable distributor
   8. Overhaul an ignition distributor
   9. Service a transistorized ignition system (Dezco-Remy)
   10. Tune an engine
   11. Test engine vacuum

D. Lighting and signal circuits
   1. Replace a headlamp-beam depressor switch
   2. Replace a hydraulic stop-light switch
   3. Replace a mechanical stop-light switch
   4. Replace an auto-lighting switch
   5. Replace a headlamp "sealed beam" unit
   6. Replace an instrument panel lamp
   7. Replace a tail parking or signal lamp

E. Gauges and indicators
   1. Service a generator telltale indicator
   2. Service an oil pressure telltale indicator
   3. Service an ammeter
   4. Service a termperature indicator
   5. Service fuel tank gauge and sender unit

AUTOMOTIVE ENGINE DIAGNOSIS AND TUNE-UP

Units

I. Tune-Up - Its Meaning and Opportunities

   A. Scope of tune-up work
   B. Sequence of operations
   C. Divisions of tune-up work
   D. Testing equipment
   E. Tune-up opportunities

II. Elements of Automotive Electricity

- A. Electrical fundamentals
  - 1. Composition of matter
  - 2. Effect of heat
  - 3. Nature of electricity
- B. Electrical measurements
  - 1. Electrical current flow compared with water flow
  - 2. Size of electrical units
  - 3. Factors affecting current flor
  - 4. Ohm's Law
  - 5. Automotive electrical circuits
  - 6. Application of Ohm's Law
  - 7. Resistance and circuit balance
  - 8. Energy, work and power
- C. Magnetism-induced currents
  - 1. Magnetism
  - 2. Induction
- D. Automotive electrical circuits
  - 1. Voltage drop
  - 2. Circuit comparisons
  - 3. Relays
  - 4. Internal and external circuits
  - 5. Series and parallel circuits
  - 6. Fuses and circuit breakers
  - 7. Symbols used in wiring diagrams

III. Mechanics of the Internal Combustion Engine

- A. The engine-its valves and firing orders
  - 1. Firing order
  - 2. Valve function and timing
  - 3. Valve lap (or overlap)
  - 4. Valve troubles
  - 5. Valve concentricity
  - 6. Adjusting valve tappets
  - 7. Hydraulic valve lifters
  - 8. Compression ratio
- B. Pistons, cylinder walls and rings
  - 1. Pistons
  - 2. Cylinder walls
  - 3. Rings
  - 4. Turquing cylinder head bolts
- C. Engine bearings
  - 1. General types
  - 2. Connecting rod bearings
  - 3. Crankshaft bearings
  - 4. Installing bearings
  - 5. Worn bearings

- 6. Causes of failures
- 7. Crankcase ventilation

D. Diagnosing engine troubles
- 1. Scientific test procedure
- 2. Compression test
- 3. Cylinder leakage test
- 4. Engine vacuum test
- 5. Tracing troubles by sound
  - a. Automotive stethoscope

E. Cooling system-function, maintenance and troubles
- 1. Function
- 2. Residual heating
- 3. Inspection and maintenance
- 4. Internal leakage
- 5. Water pump leakage
- 6. Cooling system thermostat
- 7. Pressurized cooling systems
- 8. Inspecting pressurized systems
- 9. Causes of overheating
- 10. Diagnosis of cooling system troubles
- 11. Protection of cooling system

IV. Working Tools of Diagnosis and Tune-Up

A. Electrical test instruments
- 1. Instrument actuating factors
  - a. Electrical
    - (1) Current flow in amperes
    - (2) Pressures in volts
    - (3) Resistance in OHMS
    - (4) Capacity in microfarads
    - (5) Impulses or intermittent currents
  - b. Physical
    - (1) Gaseous pressures
      - (a) positive
      - (b) negative
    - (2) Exhaust gas composition
    - (3) Liquid volumes
    - (4) Liquid pressures
    - (5) Specific gravities of liquids
    - (6) Temperatures
  - c. Mechanical
    - (1) Spring tensions
    - (2) Precision dimensions
    - (3) Engine timing

B. Mechanical instruments and instrument combinations
   1. Pressure testing instruments
   2. Combinations
C. Automotive Oscilloscope
   1. Basic operation
   2. Advantages
   3. Single-trace cycle
   4. Analysis of ignition system action
   5. Types of trace presentation
   6. Significance of trace variations
   7. Oscilloscope controls

V. Generation and Storage of Electricity

A. Storage Battery
   1. Parts of a storage battery
   2. Analyzing battery condition
   3. Battery plates
   4. Chemical reaction
   5. Sulphation
   6. Specific gravity
      a. Temperature correction
   7. Battery rating and capacity
   8. Dry charged batteries
B. Storage battery-care and servicing
   1. Charging
   2. Protection from freezing
   3. Analyzing condition
   4. Treating sulphated batteries
   5. Battery deterioration and damage
   6. Service procedure
C. Generator and cut-out relay
   1. Generator function and safeguards
   2. Construction
   3. Operation
   4. Shunt-type generator
   5. Regulation
   6. Cut-out relay
   7. Charging system voltage
   8. Relationship of generator, regulator and battery
   9. Temperature effects
D. Generator controls
   1. Development of controls
   2. Step-voltage control
   3. Vibrating voltage regulator
   4. Current regulator

    - 5. Battery considerations
    - 6. Temperature compensation
    - 7. Contact points and polarity
    - 8. Dash charging signal
  - E. Alternating current charging circuits
    - 1. Electromagnetic induction
    - 2. AC generator operating principles
    - 3. AC generating system
    - 4. LEECE Meville equipment
    - 5. Delco-Remy equipment dezcotron
    - 6. Chrysler AC generator
    - 7. Electric auto lite-Prestolite
    - 8. Motorola system
    - 9. Ford alternator
    - 10. Trouble shooting the AC system
  - F. Charging circuit maintenance and troubles
    - 1. Wiring
    - 2. Generator service
    - 3. Generator control checks and adjustments
    - 4. Alternator service

VI. The Ignition System

  - A. Coil and condenser
    - 1. General description
    - 2. Ignition wires
    - 3. Resistor cables-suppression
    - 4. Ignition coil
    - 5. Condenser
    - 6. Ballast resistor
  - B. Distributor
    - 1. Function
    - 2. Automatic spark advance mechanism
    - 3. Time of ignition
    - 4. Breaker contacts
    - 5. Lead wires
    - 6. High-tension circuit
    - 7. Electronic ignition system
    - 8. Full-vacuum-control system
  - C. Spark plugs
  - D. Maintenance and troubles
    - 1. Wiring
    - 2. Ballast resistor
    - 3. Coil
    - 4. Condenser
    - 5. Distributor
    - 6. Spark plug troubles

VII. Fuel System and Carburetion

- A. Fuel system
  - 1. Fuel pumps
  - 2. Tanks and fuel lines
  - 3. The carburetor
- B. Representative carburetors
  - 1. Rochester 4GC
  - 2. Holley 4-barrel
  - 3. Carter WCFB
  - 4. Ford 4-barrel

- C. Maintenance and troubles
  - 1. Air cleaners
  - 2. Fuel pumps
  - 3. Vacuum pump
  - 4. Carburetors
  - 5. Automatic choke
  - 6. Other factors affecting performance and economy
  - 7. Manifold heat control
  - 8. Vacuum spark advance
  - 9. Windshield wiper hose
  - 10. Muffler

VIII. Other Circuits of the Automobile

- A. Cranking circuit
  - 1. Cranking motor
  - 2. Cranking motor drives
  - 3. Cranking motor controls
  - 4. Maintenance and service
- B. Lighting and signal circuits
  - 1. Lighting and accessory circuit
  - 2. Horn circuit
  - 3. Electric windshield wiper circuit
  - 4. Turn signal circuit
- C. Dash instruments
  - 1. Ammeter service
  - 2. Oil pressure gauge
  - 3. Temperature indicators
  - 4. Fuel level gauges
  - 5. Speedometer
  - 6. Service procedures

IX. Tune-up and Diagnosis Procedure

A. Diagnosis-principles and methods
  1. Make-up of the automobile
  2. Corrective diagnosis
    a. Engine block head and oil pan
    b. Crank shaft, connecting rods, piston assembly
    c. Valve train
    d. Fuel system
    e. Ignition system
    f. Generating system
    g. Cranking system
    h. Cooling system
    i. Lubrication system
  3. Preventive diagnosis
B. Tune-up procedure
  1. Components of a thorough tune-up
  2. Oscilloscope testing
  3. Basic tune-up procedure
  4. Additional checks
  5. Summary of recommended tune-up procedure
    a. Diagnose
    b. Clean and inspect battery
    c. Test battery
    d. Test cranking voltage
    e. Test compression
    f. Replace or service spark plugs
    g. Inspect coil
    h. Inspect distributor cap and rotor
    i. Inspect primary wires and secondary cables
    j. Replace breaker points
    k. Replace condenser
    l. Lubricate distributor CAM
    m. Set breaker point dwell angle
    n. Set ignition timing
    o. Check centrifugal advance action
    p. Check vacuum advance (and retard) action
    q. Inspect drive belt condition and test belt tension
    r. Test generator or alternator output
    s. Test voltage regulator
    t. Test charging system insulated and ground circuits
    u. Test charging voltage
    v. Service manifold heat control valve
    w. Service carburetor air cleaner
    x. Replace positive crankcase ventilation system valve
    y. Test exhaust emission control system
    z. Replace fuel filter
    aa. Test fuel pump
    bb. Adjust carburetor
    cc. Adjust valve clearances (if necessary)

C. Automotive exhaust and emissions control methods
   1. Nature of smog
   2. Engine ventilation
   3. Positive crankcase ventilation
   4. Exhaust emission systems
   5. Air injection system
   6. Ignition-induction systems
   7. Improved combustion control
   8. Controlled combustion system
   9. Importance of observing factory specifications

Automotive Engine Overhaul and Rebuild

Units

I. Diagnosis and Troubleshooting

A. Emergency troubleshooting
   1. Basic starting trouble tests
      a. The cranking system
      b. The ignition system
      c. The fuel system
      d. Compression

B. Detailed tests for hard starting
   1. Isolating the starting trouble
   2. Cranking system
   3. Ignition system
   4. Fuel system

C. Troubleshooting the mechanical parts of engine
   1. Using a vacuum gauge
   2. Using a compression gauge
   3. Using low-compression troubleshooting charts

D. Troubleshooting for excessive oil consumption
   1. Oil leaks
   2. Vacuum booster pump
   3. Crankcase ventilator
   4. Using excessive oil consumption troubleshooting charts

E. Positive crankcase ventilation system diagnosis

F. Exhaust emission control

G. Troubleshooting the air system
   1. Air supply pump test
   2. Exhaust check valve test
   3. Backfire suppressor valve test
   4. Use of air troubleshooting charts

H. Diagnosis of engine noises
   1. Crankshaft knocks
   2. Connecting rod bearing noises

    3. Piston noises
    4. Piston pin noises
    5. Valve mechanism noises
    6. Spark knock
    7. Accessory noises
    8. Using engine noise troubleshooting charts
  I. Under-hood noise tests
  J. Diagnosing poor performance due to excessive friction
  K. Troubleshooting the cooling system
    1. Overheating
    2. Testing for exhaust gas leaks
    3. Using cooling system troubleshooting charts

II. Disassembling the Engine

  A. Disassembling the top of the engine
  B. Examining the top of the engine
  C. Disassembling the bottom of the engine
  D. Disassembling the front of the engine

III. Cleaning, Inspecting and Ordering Parts

  A. Cleaning parts
  B. Chemical cleaning
    1. Bright dip
    2. Steam cleaning
    3. Rust and scale removal
  C. Inspecting and ordering parts
    1. Reading a micrometer
    2. Cylinder wall inspection
    3. Ring inspection
    4. Rods and piston pins
    5. Pistons
    6. Crank pins
    7. Main bearing journals
    8. Valves
    9. Valve springs
    10. Tappets
    11. Hydraulic lifters
    12. Timing mechanism
  D. Completing the order
    1. Parts identification in catalog
    2. Pricing and costing
    3. Placing the order

IV. Repair and/or Replace Component Assemblies

- A. Block, crankshaft and camshaft assembly
  1. Removing and cylinder wall ring ridge
  2. Honing the cylinder walls
  3. Replacing main bearings and seals
  4. Fitting the crankshaft
  5. Torquing the main bearings
  6. R & R camshaft assembly
  7. Install timing assembly
  8. R & R lifters or tappets
  9. R & R lubrication subsystem
  10. Install flywheel assembly
- B. Pistons and rods
  1. Install new rings in piston grooves
  2. Assemble and alighn rods to pistons
  3. Replacing connecting-rod bearings
  4. Installing piston in cylinder
- C. Valves and valve mechanisms
  1. Reface valves and valve seats
  2. Machine valve guides and install seals
  3. Reface rocker arms
  4. Reasemble valve mechanism
  5. Install heads
- D. Fuel system
  1. Install intake manifold
  2. R & R carburetor
  3. R & R fuel pump
  4. Install new fuel filter
  5. Service and install air cleaner
  6. R & R PCV valve and related component parts
- E. External assemblies
  1. Install timing assembly cover
  2. Install crankcase pan
  3. Install bell housing
  4. Install thermostat and cover
  5. Install exhaust manifold
  6. R & R cranking motor
  7. R & R alternator/generator
  8. Install new motor mounts

V. Remount Engine in Chassis

- A. Install Engine
- B. Transmission
- C. Exhaust system
- D. Reconnect fuel system

E. Reconnect cooling system
F. Reconnect electrical and mechanical controls
G. Install ignition system
   1. R & R distributor
   2. Install coil
   3. Install plugs
   4. Install ignition wiring harness

VI. Final Testing Adjustment and Inspection

A. Start engine
B. Set ignition timing
C. Inspect lubrication system operation
D. Inspect cooling system operation
E. Adjust carburetion system
F. Inspect and adjust charging system
G. Inspect and adjust electrical and mechanical control system.
H. Adjust valve mechanism
I. Retorque head bolts
J. Recheck carburetor adjustments
K. Recheck ignition timing
L. Test drive, following break-in procedure

AUTOMOTIVE STEERING, SUSPENSION AND BRAKES

Units

I. Automotive Springs and Suspension

A. Function of springs
B. Types of springs
   1. Coil springs
   2. Leaf springs
   3. Single-leaf springs
   4. Torsion bar suspension
   5. Air suspension
   6. Hydrolastic suspension
C. Spring and unsprung weight
D. Characteristics of springs
   1. Hookes law
E. Leaf spring installation
   1. Hanger
   2. Shackle
   3. Transverse mounting

- F. Rear suspension
  - 1. Hotchkiss drive
  - 2. Torque-tube drive
- G. Front suspension
  - 1. Independent front suspension
  - 2. Twin I-beam construction
  - 3. Single I-beam construction
- H. Shock absorbers
  - 1. Operation and purpose
  - 2. Types
    - a. Direct-acting
    - b. Parallel-cylinder
    - c. Opposed-cylinder
    - d. Vane type
- I. Automatic level control

II. Steering Systems

- A. Function of steering system
- B. Front-end geometry
  - 1. Chamber
  - 2. Steering-axis inclination
  - 3. Included angle
  - 4. Caster
  - 5. Toe-in
  - 6. Toe-out during turns
- C. Steering linkages
- D. Tilt steering wheel and column
- E. Collapsible steering column
- F. Steering lock
- G. Steering gears
  - 1. Toothed roller
  - 2. Recirculating-ball
  - 3. Stud
- H. Power steering
  - 1. GMC power steering (rotary valve)
  - 2. Christler power steering (constant control)
  - 3. Linkage type units
  - 4. Ford 1st and 2nd type torsion bar

III. Steering and Suspension Service

- A. Need for logical procedure
- B. Trouble diagnosis
  - 1. Excessive play in system

  2. Hard steering
  3. Car wander
  4. Car pulls to one side
  5. Front-wheel shimmy
  6. Front-wheel tramp
  7. Steering kickback
  8. Tires squeal on turns
  9. Abnormal tire wear
  10. Hard or rought ride
  11. Sway on turns
  12. Spring breakage
  13. Sagging springs
  14. Noises

C. Servicing steering linkages and suspensions
  1. R & R tie rods
  2. R & R idler arm
  3. R & R upper and lower control arms
  4. R & R springs
  5. R & R shock absorbers

D. Front-end alignment
  1. Caster
  2. Camber
  3. Steering-axis inclination
  4. Toe-in
  5. Toe-out on turns

E. Steering gear service
  1. Manual system
    a. Worn gear/steering shaft play
    b. Backlash between worn and sector
    c. Sector shaft end play
  2. Power system
    a. Lubrication
    b. Air bleeding
    c. Fluid level check
    d. Pump level check
    e. Fluid leaks
    f. Turning effort
    g. Pump flow
    h. Pump fluid pressure test
    i. Pressure relief valve
    j. Hose inspection

IV. Brake Systems

A. Theory
  1. Friction

   2. Friction of rest and motion
   3. Friction in the car brakes
   4. Brake action
- B. Dual brake system
- C. Self-adjusting brakes (drum type)
- D. Disc brakes
- E. Antiskid devices
- F. Brake fluid
- G. Brake lines
- H. Hand brakes
- I. Power brakes
   - 1. Atmospheric pressure and vacuum
   - 2. Types of power brakes
      - a. Integral type
      - b. Multiplier type
      - c. Assist type
   - 3. Operation

V. Brake Service

- A. Trouble diagnosis
   - 1. Drum type
      - a. No pedla
      - b. One brake drags
      - c. All brakes drag
      - d. Car pulls to one side
      - e. Soft, or spongy, pedal
      - f. Requires excessive pedal pressure
      - g. Too sensitive or grabbing
      - h. Noisy
      - i. Air in system
      - j. Loss of brake fluid
      - k. Warning light comes on when braking (dual system)
   - 2. Disc type
      - a. Excessive pedal travel
      - b. Roughness or chatter
      - c. Excessive pedal effort required
      - d. Noises
      - e. Brakes heat up during driving
      - f. Leaky wheel cylinder
      - g. Grabbing
      - h. No braking action
- B. Adjustment
- C. Repair and/or replacement
   - 1. Linings

      - a. Drum type
      - b. Disc type
    - 2. Discs and drums
      - a. Turning or grinding
      - b. Safety precautions
    - 3. Wheel and master cylinders
      - a. Disassembly
      - b. Honing
      - c. Cleaning
      - d. Reassembly
    - 4. Installing brake tubing
    - 5. Flushing hydraulic system
    - 6. Filling and bleeding system
  - D. Final inspection, adjustments and test drive

STANDARD AUTOMOTIVE TRANSMISSIONS AND OVERDRIVES

Units

I. Standard Transmission

  - A. Purpose
  - B. Location
  - C. Gearing and gears
    - 1. Purpose of gears
    - 2. Torque
    - 3. Gear reduction formula
    - 4. Types of gears
      - a. Spur
      - b. Bevel
      - c. Helical
      - d. Spiral
      - e. Hypoid
      - f. Worm
    - 5. Combining for different ratios
      - a. Sliding gears
      - b. Constant-mesh gears
    - 6.Idler gears
  - D. Construction of standard transmission
    - 1. Case
    - 2. Shafts
    - 3. Gears
      - a. Low and reverse
      - b. Synchromesh unit
      - c. Shift mechanism
  - E. Operation

  1. Reverse
  2. First (low)
  3. Second
  4. High
- F. Fully synchronized units
  1. Three-speed
  2. Four-speed
- G. Troubleshooting the transmission
- H. Lubrication

II. Overdrive

- A. Purpose
- B. Location
- C. Operation
  1. Highway driving
  2. City driving
- D. Construction
  1. Free-wheeling mechanism
  2. Planetary gear train
- E. Controls
  1. Mechanical
     - a. Conventional drive
     - b. Overdrive
  2. Electrical
     - a. Speed controlled
     - b. Driver controlled
- F. Troubleshooting the overdrive
- G. Lubrication

III. Clutch

- A. Purpose
- B. Location
- C. Construction
  1. Driving members
     - a. Flywheel
     - b. Pressure-plate assembly
  2. Driven member
     - a. Disc
  3. Operating members
     - a. Clutch bearings
       1. Release (throw-out)
       2. Pilot
     - b. Release mechanism

D. Operation
E. Variations in design
  1. Semicentrifugal clutch
  2. Diaphram-spring clutch
  3. Grown pressure-spring clutch
  4. Hydraulic clutch (fluid)
F. Clutch troubles
  1. Slipping
  2. Grabbing and chattering
  3. Rapid wear
  4. Stiff pedal
  5. Noisy
G. Troubleshooting the clutch

AUTOMATIC TRANSMISSIONS

Units

I. Basic Theory

A. Torque converter
  1. Pump (impeller)
  2. Turbine
  3. Stator)third member)

II. Automatic Transmissions in Current Use

A. Volkswagon automatic stick-shift
B. GMC jetaway
C. GMC turboglide
D. Chrysler torqueflite
E. GMC dynaflow
F. Ford cruise-o-matic Fordomatic
G. GMC powerglide
H. Dual range hydra-matic
I. Two-speed Fordomatic
J. Corvair powerglide
K. Three-speed hydramatic
L. Powerflite
M. Turbine "300" jetaway two-speed
N. Turbohydramatic turbine "400"
O. Ford C-4 dual range
P. Ford C-6
Q. Turbohydramatic "350"

III. Operation of GMC Type 300 Auto Transmission

- A. Description
    - 1. Torque converter
    - 2. Hydraulic system
    - 3. External controls
        - a. Manual linkage
        - b. Engine vacuum
        - c. Electrical signal
        - d. Selector quadrant
- B. Mechanical operation
    - 1. Neutral - engine running
    - 2. Low range - first speed
    - 3. Low range - second speed
    - 4. Drive range - third speed
    - 5. Reverse
- C. Hydraulic operation
    - 1. Pressure control
    - 2. Vacuum modulator assembly
    - 3. Governor assembly
- D. Functions of valve and hydraulic control units
    - 1. Pressure regulator
    - 2. Manual valve
    - 3. Governor assembly
    - 4. Modulator valve
    - 5. 1-2 shift valves
    - 6. 1-2 modulator valve
    - 7. 2-3 shift valve
    - 8. 2-3 modulator valve
    - 9. 3-2 valve
    - 10. 1-2 accumulator valve
    - 11. Detent valve
    - 12. Detent regulator valve
    - 13. Rear servo and accumulator assembly
    - 14. Front servo

IV. Diagnosis

- A. Diagnosis procedure
    - 1. 3-2 check
    - 2. 2-1 check
- B. Diagnosis sequence
    - 1. Fluid level
    - 2. Oil pressure
    - 3. Manual linkage
    - 4. Engine idle and dash pot adjustment
    - 5. Vacuum line

  6. Vacuum modulator assembly
  7. Detent switch and solenoid
  8. Governor assembly
  9. Control valve assembly
  10. Rear servo assembly
  11. Front servo assembly
  12. Forward clutch
  13. Intermediate clutch
  14. Direct clutch
  15. Front and rear bands

C. Oil leaks
  1. External
  2. Internal

V. Overhaul

A. Removal of major components from case
  1. Torque converter
  2. Modulator assembly and valve
  3. Governor, speedometer driven gear, oil pan, strainer and intake pipe
  4. Control valve assembly, governor pipes and detent spring assembly
  5. Rear servo, solenoid, front servo, manual detent and park linkage
  6. Rear oil seal and extension housing
  7. Turbine shaft, forward clutch, direct clutch, front band sun gear shaft, intermediate clutch and center support
  8. Disassembly of the gear train assembly
  9. Governor assembly

B. Disassembly, inspection and reassembly
  1. Front servo
  2. Rear servo
  3. Control valve
  4. Oil pump
  5. Forward clutch
  6. Direct clutch and intermediate sprag
  7. Center support and intermediate clutch
  8. Reaction carrier, rear sprag and output carrier assembly
     a. Pinion replacement procedure
  9. Output shaft
  10. Rear internal gear
  11. Sun gear
  12. Sun gear shaft

    13. Turbine shaft
    14. Main shaft
    15. Front and rear bands
    16. Case extension
    17. Modulator valve
    18. Manual and parking linkage
    19. Case assembly
    20. Torque converter
C. Assembly of rear unit
D. Assembly of units into transmission case
E. Rear extension housing assembly
F. Installation of manual linkage
G. Installation of front servo, check balls, gaskets, spacer and solenoid
H. Installation of rear servo assembly
I. Installation of control valve assembly and governor pipes
J. Installation of modulator valve and vacuum modulator
K. Installation of governor assembly
L. Installation of speedometer driven gear assembly
M. Final inspection and checkout
    1. Oil level and cleanliness
    2. Throttle and control linkages
    3. Brake band adjustments
    4. Oil pressure checks
    5. Stall test

RETAILING

Instructional procedures:

On-the-job training stations are used. These stations provide students with selling experiences and an opportunity to meet the public.

Instructional Units:

I. Discovering the interest of the student

II. Simple problem solving (mathematics)

III. Cash register and adding machines

IV. Selling techniques (if student develops an interest in selling)

V. On-the-job training

VI. Employment preparation
    A. Personal data sheet
    B. Applications
    C. Interviews

VII. Course Evaluation
    A. Prepared by student
    B. Prepared by teacher

CHILD DEVELOPMENT - CHILD DAY CARE

I. Orientation to Employment in the Area of Child Development

- A. Employment opportunities in the area of child development
  - 1. Entry level occupations which may or may not require high school training
    - a. Baby-sitter in a private home
    - b. Helper in child-care center
    - c. Nursemaid for private family
    - d. Nursery school aide, assistant
    - e. Kindergarten helper
    - f. Helper in children's hospital ward
    - g. Helper on playground
    - h. Assistant in recreation center
    - i. Assistant in children's library
    - j. Sales clerk for children's toys, books, clothing
  - 2. Occupations requiring advanced training and/or education
    - a. Aide or attendant in child-care center
    - b. Teacher assistant
    - c. Teacher
      - 1) Nursery school
      - 2) Kindergarten
      - 3) Elementary
      - 4) College - child development
      - 5) Adult - child development
    - d. Director of child-care center
    - e. Research assistant in child development
    - f. Buyer of children's toys, books, clothing in department store
- B. Significance of the area of child development as a field of study and as an occupational field.

1. Contributions child-care centers may make to welfare of children
    a. Supplement and complement care received at home
    b. Allow opportunities for expression of feelings in acceptable ways
    c. Provide varied play experiences
    d. Allow opportunities to develop independence and assume responsibilities
    e. Provide atmosphere conducive to optimum development of each child

2. Significance of child development programs
    a. Effect of changes in family life patterns on care of children
    b. Increasing number of individuals and families served by child development programs
    c. Knowledge of how methods of dealing with children influences the individual development of the child
    d. Contributions of research to the body of knowledge about human development

C. Personal qualities which contribute to success in employment in the area of child development and guidance

1. Willingness to learn and to work

2. Character traits such as:
    a. Initiative
    b. Dependability
    c. Accuracy
    d. Promptness
    e. Cheerfulness
    f. Honesty
    g. Loyalty
    h. Maturity
    i. Patience
    j. Calmness
    k. Firmness
    l. Emotional stability

3. Ability to take constructive criticism

4. Ability to follow directions

5. Respect for employer and staff members

6. Appropriate standards of health and personal grooming

    a. Health certificate
    b. Physical stamina
    c. Clean, neat, appropriately dressed

7. Observance of professional ethics

    a. Love of children
    b. Enjoyment of working with children
    c. Some understanding of child development and behavior
    d. Sense of fairness
    e. Ability to communicate with children
    f. Skill in directing activities appropriate for age level
    g. Alertness
    h. Understanding of self; positive self-concept

II. Responsibilities of Child-Care Employees

A. Understanding principles of growth and development

1. Factors influencing development

    a. Heredity
    b. Environment

        1) Surroundings
        2) Experiences

2. How a child grows

    a. Irregular
    b. Follows a pattern
    c. Own individual rate

3. Ways a child develops

    a. Physically
    b. Mentally (intellectual)
    c. Emotionally
    d. Socially

4. Influence of preschool years on later growth and development

B. Guiding growth and development

1. Purposes of guidance

    a. Adjustment to immediate environment
    b. Well being of child

        1) Basic needs
        2) Safety

2. Principles of guidance

    a. Positive approach
    b. Consistency
    c. Supporting limits
    d. Recognizing individual differences
    e. Love and acceptance of child

3. Methods of guidance

    a. Indirect

        1) Arranging schedules
        2) Types of equipment
        3) Manipulating surroundings

    b. Direct

        1) Physical
        2) Verbal

C. Supervising activities

1. Purposes of activities

    a. Gain coordination
    b. Develop social skills
    c. Develop concepts
    d. Release excess energy, emotions and tension
    e. Aid in problem solving

2. Principles of supervising

    a. Guidelines
    b. When to interfere

3. States of activity
    a. Solitary (alone)
    b. Parallel (beside)
    c. Cooperative (group)

4. Types of activity
    a. Free activity
        1) Indoor
        2) Outdoor
    b. Dramatic activity (imaginative)
        1) Doll center
        2) Blocks
        3) Dress-up
    c. Creative
        1) Principles of creativity
        2) Techniques for developing child's creativity
            a) Painting
                i) Easel
                ii) Finger
                iii) Sponge
            b) Cutting
            c) Pasting
            d) Crayons, chalk, pencil, ink
            e) Modeling
                i) Clay
                ii) Dough
            f) Puppets, mobiles, stables
            g) Graphics
            h) Use of "waste" materials
            i) Simple science projects
            j) Water, sand, snow
            k) Flannel board
            l) Caprentry
    d. Literature

  - 1) History of children's literature
  - 2) Criteria for selecting books for children
  - 3) Illustrators and illustrations for children's books
  - 4) Types of stories
    - a) Animal
    - b) Fantasy
    - c) Realism
    - d) Fables
    - e) Parables
    - f) Proverbs
  - 5) Uses of poetry
  - 6) Books which especially contribute to intellectual stimulation
  - 7) Meaningful methods for reading aloud to children and for storytelling
  - 8) Uses of fingerplays

e. Musical activity

  - 1) Fundamentals
    - a) Rhythm
    - b) Harmonic and melodic concepts
    - c) Pitch
    - d) Key determination
  - 2) Value of Music
  - 3) Various expressions of music
    - a) Records
    - b) Rhythm band instruments
    - c) Fingerplays
    - d) Music and dance
    - e) Group singing
    - f) Spontaneous music by children
    - g) Musical games
  - 4) Ways to incorporate music into program
    - a) Special time period
    - b) Supplement to another activity
    - c) Transition between activities
    - d) Therapeutic value

  - 5) Ways to encourage children to participate in musical activities

f. Excursions

g. Habits and routines

  - 1) Value of habits

        - 2) Relation of habits to routines
        - 3) Developing habits through routines of
            - a) Toileting
            - b) Snacks and mealtime
            - c) Sleep and rest
            - d) Cleanliness
    - h. Health and safety activities
        - 1) Developing health and safety practices
        - 2) Childhood diseases
            - a) Symptoms
            - b) Treatment
            - c) Immunization
        - 3) Chronic diseases
            - a) Description
            - b) Care
            - c) Aiding child in adjusting to
        - 4) First aid procedures
        - 5) Health agencies available to children
- 5. Relationship between stages of development and activity

D. Observations of children

- 1. Principles
    - a. Concentration
    - b. Objectivity
    - c. Sensitivity
    - d. Accuracy and conciseness in recording behavior
    - e. Differentiation between facts and interpretations of behavior
- 2. Discussion of behavioral aspects observed

E. Other responsibilities

- 1. Working as a member of a team
    - a. Learning names of employer, employees, parents and children
    - b. Becoming familiar with policies, schedules, etc.
    - c. Determining responsibilities of particular job
- 2. Selecting materials and equipment

    - a) Promoting development
    - b) Providing for

  - 3. Clerical

  - 4. Housekeeping

    - a) Arrangement, use, and care of equipment
    - b) Cleaning up

III. Child-care employment as a career

  A. Significance of child-care employment (review)

  B. Avenues for additional preparation

    1. Education

    2. Training

  C. Opportunities for advancement

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Dated this 14th day of November, 1971

By H. Lynn Caldwell, Director of Project

H. Lynn Caldwell, Director of Project